STIC-Biotech/ChemLib

181150

From:

Whiteman, Brian

Sent:

Friday, March 03, 2006 9:19 AM

To:

STIC-Biotech/ChemLib

Subject:

seq search

10/782,899

nucleotides 1-192 of SEQ ID NO: 1 and nucleotides 472-600 of SEQ ID NO: 1 1) us patents and published us patent application databases

Thank you,

Brian Whiteman Remsen, 2D14 mail box 2C18 Patent Examiner - Art Unit 1635 United States Patent and Trademark Office (571) 272-0764

Searcher:
Searcher Phone:
Date Searcher Picked up:
Date completed:
Searcher Prep Time:
Online Time:

Type of Search

NA#_______AA#:_____

S/L:____Oligomer:_____

Encode/Transl:______Text:____

Structure #:_____Text:____

Inventor:______ Litigation:______

Vendors and cost where applicable STN: _____ DIALOG: ____ QUESTEL/ORBIT: ____ LEXIS/NEXIS: ____ SEQUENCE SYSTEM: ____ WWW/Internet: ____ Other (Specify): _____

This Page Blank (uspto)

3

OM nucleic

Run on:

Sequence:

Searched:

```
1 (bases 1 to 600)

Rujimori,M., Taniguchi,S., Amano,J., Yazawa,K., Kano,Y.,

Nakamura,T. and Sasaki,T.

Drug for gene therapy using anaerobic bacteria

Latent: JP 2002097144-A 1 02-APR-2002;

JUN AWANO,MINORU FUJIMORI

DO 12-APR-2002

PP 21-SEP-2001

PP
              AC024216 Homo Bapi
AC02646 Homo Bapi
AC02668 Homo Bapi
AL621049 Human DNA
AL360354 Plasmodiu
AL63115 Mouse DNA
AL563115 Mouse DNA
AC15777 Mus muscu
AC15777 Mus muscu
AC15854 Homo Bapi
AC010554 Homo Bapi
AC01056 Homo Bapi
AC01056 Homo Bapi
AC01056 Homo Bapi
AC01053 Homo Bapi
AC01053 Homo Bapi
AC01053 Homo Bapi
AC030396 Human DNA
G5437 SHGC-100131
BC052387 Mus muscu
AC030996 Mus muscu
                                                                                                                                                                                                                                                                                                                               AC026625 Homo sapi
AF091512 Homo sapi
                                                                                                                                                                                                                                                                                                                                                              Continuation (6 of
AC014319 Drosophil
AC116546 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                             AC009115 Homo Bap:
   AC018814 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BD144660.1 GI:27850418
JP 2002091144-A/1.
Blifdobacterium longum
Bilidobacterium longum
Bacteria; Actinobacteria; Actinobacteridae; Bifidobacteriales;
Bifidobacteriaceae; Bifidobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 192; DB 6; Length 600; 100.0%; Pred. No. 1.4e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600 bp DNA lined
Drug for gene therapy using anaerobic bacteria.
BD144660

    600
    602ganism="Bifidobacterium longum"
/mol_type="genomic DNA"
    /db_xref="taxon:216816"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (193). .(471)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                              CR382122_05
AC014319
                                                                                        VYIVD10
AL663115
AC157771
AC141477
                                                                                                                                                     AC158618
AC008554
AC010636
AF367244
AC084160
AC158525
HS1189B24
                                             AC026486
                                                                                                                                                                                                                                                                                                                                 AC026625
                                                                                                                                                                                                                                                                 G54937
BC052387
                                                                                                                                                                                                                                                                                                AF140786
AF387811
                                                                            AL451049
                                                                                                                                                                                                                                                                                                                                              8 AF091512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drug for gene therap
Location/Qualifiers
CDS (193
                                                                                                                                                                                                                                                                   10
                                                                                                                                                                                                                                                                                                                                                              15
                                                                                                                                                                                                                                                                                                                                               87258
110000
132910
160421
168700
                              188432
148269
162249
166973
155711
                                                                                                                                                                                    179393
4799
17073
179650
                                                                                                                        189862 213720
                                                                                                                                                       235639
166873
                                                                                                                                                                                                                                                                 630
4765
5011
5034
74436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
 DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BD144660
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
 ORIGIN
                                                                              υυ
                                                                                                                                                         υυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BD144660 Drug for
Continuation (23 o
AX492788 Sequence
AX553955 Sequence
AB072446 Bifidobac
AC068816 Rattus no
AC122956 Rattus no
AC1554842 Mus muscu
AC1554842 Mus muscu
AC1554842 Pan trogl
AC092873 Pan trogl
AC151799 Pan trogl
AC149460 Papio anu
AC116068 Rattus no
AC097194 Rattus no
AC097194 Rattus no
AC087432 Homo sapi
                                                                                                      March 7, 2006, 11:25:13; Search time 1781.23 Seconds (without alignments) 6127.182 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                     1 gctgggcgcggcgtga.....tgacccaagaaggatgctt 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                11766282
              5.1.7
Biocceleration Ltd.
                                                                                                                                                                                                                                                                                5883141 segs, 28421725653 residues
                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
              GenCore version
Copyright (c) 1993 - 2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BD144660
AE014295_22
AX492788
                                                                                                                                                                                                                                                                                                                                                                                          Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                         nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC096816
AC122956
AL671518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC154842
AC140952
AC092873
AC098646
AC151799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC149460
AC116068
AC097194
AC087432
AC020753
                                                                                                                                                               US-10-782-899-1_COPY_1_192
192
                                                                                                                                                                                                                                IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                            seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                              GenEmbl:*
1: 90 ba:*
1: 90 in:*
1: 90 om:*
1: 90 om:*
1: 90 pat:*
1: 90 pr:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          152430
160410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 246991
67395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               230625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      156638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   156646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              171239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             183888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               317403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                170350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             234234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              231844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               171391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing:
                                                                                                                                                                    Title:
Perfect score:
                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    175.2
175.2
175.2
175.2
175.2
3.2
3.6.4
36.4
36.4
36.8
35.8
35.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        34.8
```

2000

Minimum I Maximum I

Database

Result No.

υυυ

υυ

PAT 17-JAN-2003

```
1. 156638

/organism="Bifidobacterium longum biovar Longum"
/mol_type="unassigned DNA"
/db xref="taxxon:1679"
/db xref="1106 seq in place of 1099 because seq 1 (2.256.638
/noTe="1106 seq in place of 1099 because seq 1 (2.256.638
bases splitted
in 7 more sequences.
seq 0001: from 0.000.001 to 0.349.980 length: 349980
seq 1100: from 0.500.001 to 0.949.980 length: 349980
seq 1101: from 0.500.001 to 1.249.980 length: 349980
seq 1103: from 1.200.001 to 1.549.980 length: 349980
seq 1103: from 1.500.001 to 1.849.980 length: 349980
seq 1104: from 1.800.001 to 2.149.980 length: 349980
seq 1106: from 2.100.001 to 2.256.638 length: 156638"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      142105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAT 27-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          142164 ecresececesecesceargaagrescriteacaascaraarcritercrearricarrit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TC--AATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACATGCCCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTGGGCGCGCCGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT
                                                        Bifidobacterium longum biovar Longum
Bifidobacterium longum biovar Longum
Bacteria, Actinobacteria, Actinobacteridae, Bifidobacteriales,
Bifidobacteriaceae, Bifidobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bifidobacterium longum biovar Longum
Bifidobacterium longum biovar Longum
Bacteria; Actinobacteria; Actinobacteridae; Bifidobacteriales;
Bifidobacteriaceae; Bifidobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arigoni,F., Delley,M., Mollet,B., Pridmore,R.D., Schell,M.A., Pohl,T.G. and Zwahlen,M.C.
The genome of a bifidobacterium
Patent: WO 02014798.A 9 26-SEP-2002;
SOCIETE DES PRODUITS NEGILE S.A. (CH)

    1. 156646
/organism="Bifidobacterium longum biovar Longum"
/mol_type="unassigned DNA"

                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 156638;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                       Bacterial strain and genome of bifidobacterium Patent: BP 1227152-A 1106 31-JUL-2002; Societe des Produits Nestle S.A. (CH) Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 175.2; DB 6;
Pred. No. 2.6e-44;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA
Sequence 1106 from Patent EP1227152.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AX553955 156646 bp
agequence 9 from Patent W002074798.
AX553955 GI:25897908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AX492788.1 GI:23338471
                                                                                                                                                                                                                                                                                                                                                                                                                                         91.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     179 AAGAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                None.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Sim
Matches 189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local &
                 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
AX553955/c
                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                         TITLE
     DEFINITION
                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                 DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of AE014295 from base 2200001 (AE014295 Bifidobacterium longum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAT 26-SEP-2002
       ö
                                                                                                                   120
                                                                                                                                            ATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCCA 180
                                                                                                                                                               TCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                   9
                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41859 GCTGGGCGCGCGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 TC--AATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAA
                                                             ecreseccecceccarcaagrescricacaagcaraarcarcricarrescrintri
                                                                                                       1 GCTGGGCGCGGCGATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT
                                 GCTGGGCGCGCCGTGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT
       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gape
                                                                                                                                                                                                                                                                                                                  AE014295 Accession AE014295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 56640;
       ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 175.2; DB 1;
Pred. No. 2.6e-44;
0; Mismatches 3;
       ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156638 bp
                                                                                                                                                                                                                                                                                                                    LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                            810000
910000
1010000
                                                                                                                                                                                                                                                                                                                                             110000
210000
310000
410000
510000
610000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1110000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1310000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1410000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1510000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1610000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1810000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1910000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2010000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2110000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2256640
        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 97.4%;
Matches 189; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                          100001
                                                                                                                                                                                                                                                                                                                                                                                     300001
500001
600001
700001
800001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1000001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1600001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2100001
2200001
                                                                                                                                                                                                      GAAGGATGCTTT 192
                                                                                                                                                                                                                        GAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1300001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1400001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1500001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1800001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1900061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000002
        192; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23)
                                                                                                                                                                                                                                                                                                                  Sequence split into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AE014295_15

AE014295_16

AE014295_18

AE014295_18

AE014295_20

AE014295_21

AE014295_22

Continuation (23 of 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AX492788
                                                                                                                                                                                                                                                                                                                               Pragment Name
AE014295 00
AE014295 01
AE014295 02
                                                                                                                                                                                                                                                                                                                                                                                 AE014295 03
AE014295 03
AE014295 05
AE014295 06
AE014295 06
AE014295 08
AE014295 09
AE014295 09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AE014295_11
AE014295_12
AE014295_13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AE014295_14
                                                                                                                                                                                                                                                                           RESULT 2
AE014295 22/C
WPCOMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       119
                                                                                          61
                                                                                                                    61
                                                                                                                                               121
                                                                                                                                                                          121
                                                                                                                                                                                                      181
                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AE01429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
AX492788/c
LOCUS
          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                           셤
                                                                                          ઠ
                                                                                                                   g
                                                                                                                                               8
                                                                                                                                                                       셤
                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
```

ઠે 음 ð 셤 ઠે 셤

```
Sciuzopachi, Muracae; Murrae; Murrae; Marthes; Kattus.

Sciuzopachi, Muracae; Murrae; Marthes; Kattus.

Allen, C., Allen, Alabrooke; S., Amih. A., Angalano, D.,
Anyalebechi, V., Ayodaji, M., Baca, E., Baden, H.,
Baldwin, D., Bandaranaike, D., Barber, M., Barnstead, M., Benahmed, P.,
Biswalo, K., Blair, J., Blankenburg, K., Blyth, P., Brown, M.,
Bryant, N., Bulay, C., Burch, P., Burrell, K., Calderon, E.,
Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A.,
Chacko, J., Charer, K., Cavazos, I., Ceasar, H., Center, A.,
Clacko, J., Charer, K., Cavazos, I., Ceasar, H., Center, A.,
Davila, M.L., Davis, C.,
Davyla, M., Cox, C., Coyle, M., Cree, A., D'Souza, L.,
Davila, M.L., Davis, C., Davy-Carroll, L., De Anda, C., Dederich, D.,
Delgado, O., Denson, S., Denamo, C., Ding, Y., Dinh, H., Divya, K.,
Ernandez, S., Pinley, M., Eugene, C., Ranger, C., Pertar, Brang, C., Perrandez, S., Finley, M., Ganta, R., Garcia, M., Garca, M.,
Gebregorgis, B., Geer, K., Gill, R., Grady, M., Guerra, W., Guevara, M.,
Guaretne, P., Haaland, W., Hamil, C., Hamilton, C., Hamilton, K.,
Harvey, Y., Havelak, P., Hawes, A., Hodgeon, A., Hogues, M.,
Hollins, B., Howelle, S., Hladun, S.L., Hodgeon, M., Hornandez, J.,
Hollins, B., Howelle, S., Hladun, S.L., Hodgeon, M., Hondson, R., Johnson, R.,
Jackson, L., Jacob, L., Jang, H., Johnson, B., Johnson, R.,
Mangum, B., Mapua, P., Martin, R., Martin, R., Martin, S., Manfier, E., Morten, J., Lewis, L., Liu, W., Liu, Y., London, P., Longacre, S., Lopez, J.,
Lorenbewari, M., Mahhadaren, M., Mahmoud, M., Martinez, E.,
Mahenwari, M., Mahhadaren, M., Mahmoud, M., Martin, R., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AC096816
230625 bp DNA linear HTG 10-MAY-2003
Rattus norvegicus clone CH230-171E18, *** SEQUENCING IN PROGRESS
***, 7 unordered niones
       /db_xref="GI:19918954"
/translation="MAYNKSDLVSKIAQKSNLTKAQAEAAVNAPQDVFVEAMKSGEGL
KLTGLFSAERVKRPARTGRNPRTGEQIDIPASYGVRISAGSLLKKAVTE"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --AATACCTTCGGGGAAATAGATGTGAAAACCCCTTATAAAACGCGGGTTTTCGCAGAAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 ATACCCCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGCGCTAGTATCATTGATGACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 ATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                    resecececearcandas de contra canacana de la reconstruction de contra de la reconstruction de 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
                                                                                                                                                                                                                                                                                                                                           TGGGCGCGCGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTC
                                                                                                                                                                                                                                                                         Gapa
                                                                                                                                                                                                                                                                         .
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Bute
Mammalia; Butheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Rattus.
                                                                                                                                                                                                1; Length 600;
                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACO96816.6 GI:30520628
HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_ENRICHED.
Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                        Score 173.2; DB 1;
Pred. No. 1.3e-43;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unordered pieces.
                                                                                                                                                                                                Query Match
Best Local Similarity 97.4%;
Matches 187; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 6
AC096816/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ጽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                142052 ACATGCGCTAGTATCATTGATGACAACATGGACTAAGCGAAAGTGCTTGTCCCCCTGACCC 141993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    142053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600 bp DNA linear BCT 15-JAN-2003
Blidobacterium longum biovar Longum hup gene for histone-like HU
protein HB1, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hup, encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (03-OCT-2001) Yasunobu Kano, Kyoto Pharmaceutical
Submitted (03-OCT-2001) Yasunobu Kano, Ryoto Pharmaceutical
University, Institute of Molecular and Cellular Biology for
Pharmaceutical Sciences; 1, Shichono-cho, Misssagi, Yamashina-ku,
Kyoto 6078412, Japan (E-mail:ykano@mb.kyoto-phu.ac.jp,
Tel:81755954719, Pax:81755954799)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rcaracccccrrcegegaaragarergaaacccrraraaaacecegerrrreecagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TC - - AATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GCTGGGCGCGGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bifidobacterium longum biovar Longum
Bifidobacterium longum biovar Longum
Bacteria, Actinobacteria, Actinobacteridae, Bifidobacteriales,
Bifidobacteriaceae, Bifidobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Gaps
                                                     splitted into
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 156646;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Bifidobacterium longum biovar Longum"
/mol_type="genomic DNA"
/db_xref="taxon:1679"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Takeuchi, A., Matsumura, H. and Kano, Y. Cloning and expression in Bscherichia coli of a gene, the histone-like protein HU of Bifidobacterium longum Biosci. Biotechnol. Biochem. 66 (3), 598-603 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product="histone-like HU protein HBl"
/protein_id="BAB88690.1"
                                                     2256646
                                                                                to 0.349.980
to 0.649.980
to 1.249.980
to 1.249.980
to 1.549.980
to 2.1549.980
to 2.256.646"
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 175.2; DB 6;
Pred. No. 2.6e-44;
0; Mismatches 3;
/db_xref="taxon:1679"
/note="seq 1: original 1
seq 1: from 0.000.001 to
seq 3: from 0.300.001 to
seq 5: from 0.900.001 to
seq 5: from 1.200.001 to
seq 7: from 1.200.001 to
seq 8: from 1.800.001 to
seq 9: from 2.100.001 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /codon_start=1
/transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141992 AAGAAGGATGCTTT 141979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AB072446.1 GI:19918953
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 97.4%;
Matches 189; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="hup"
193. .474
/gene="hup"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 600)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AB072446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12005055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Капо, У.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                142112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RBS
gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 5
AB072446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
```

```
AC122956/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            As toaces a to consortium.

Bat Genome Sequencing Consortium.

Direct Submission

Submitted (10-MAY-2003) Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On May 10, 2003 this sequence version replaced gi:24942762.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs within a contigs of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature
Plopper,F., Poindexter,A., Popovic,D., Primus,E., Pu,L.-L.,
Puazo,M., Quiroz,J., Rachlin,E., Revees,K., Regier,M.A., Reigh,R.,
Reilly,B., Rellly,M., Ren,Y., Reuter,M., Richards,S., Riggs,F.,
Rives,C., Rodkey,T., Rojas,A., Rose,M., Rose,R., Ruiz,S.J.,
Sanders,W., Savery,G., Scherer,S., Scott,G., Shatsman,S., Shen,H.,
Shect,Y.J., ShavateBeyra,A., Sisson,I., Sitter,C.D., Smajs,D.,
Sneed,A., Sodergren,E., Song,X.-Z., Sorelle,R., Sosa,J.,
Taylor,T., Thomas,N., Thomas,S., Tingey,A., Trejos,Z., Usmani,K.,
Valas,R., Vera,V., Villasna,D., Waldron,L., Walker,B., Wang,J.,
Willson,C., Wallson,R., Wleczyk,R., Woden,H., Worley,K.,
Wright,D., Wright,R., Wu,J., Yakub,S., Yen,J., Yoon,L., Yoo,
Niederhausern,A., Weiss,R., Smith,D.R., Holt,R.A., Smith,H.O.,
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Conter project Information
Center project name: CH230-171E18
Center clone name: CH230-171E18
Center clone name: CH330-171E18
Conternsus quality: 197146 bases at least Q40
Consensus quality: 202146 bases at least Q30
Consensus quality: 205599 bases at least Q20
Consensus quality: 205599 bases at least Q20
Estimated insert size: 207699; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a "working draft' sequence. It currently consists of 7 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Worley, K.C.
Direct Submission
Submitted (18-SEP-2001) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6876: contig of 6876 bp in length
6976: gap of unknown length
35044: contig of 28068 bp in length
35144: gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center: Baylor College of Medicine Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 230625)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 230625)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6977
35045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
```

COMMENT

```
Eukaryota, Metazoa; Chordata, Craniata; Vertebrata, Euteleostomi; Bukaryota, Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi; Rumaalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognachi; Muroidae; Murinae; Rattus.

1 (bases 1 to 24691)

2 1 (bases 1 to 24691)

3 Allen,C., Allen,H., Alsbrooks,S., Amin,A., Anguiano,D., Anguiano,D., Anguiano,D., Bardaranaike,D., Barber,M., Baca,E., Baden,H., Baldwin,D., Bandaranaike,D., Barber,M., Baraftead,M., Benahmed,F., Biswalo,K., Blair,J., Blankenburg,K., Blyth,P., Brown,M., Bryant,N., Buhay,C., Burch,P., Burch,P., Eurell,K., Cadderon,E., Cardenas,V., Chavez,D., Chen,G., Chen,R., Chen,Y., Chen,Z., Chu,J., Claveland,C., Cockrell,R., Canter, D. 'Souza,L., Davila,M.L., Davis,C., Davy-Carroll,L., De Anda,C., Dederich,D., Delgado,O., Denson,S., Deramo,C., Ding,Y., Dinh,H., Divya,K., Draper,H., Dugan-Rocha,S., Dunn,A., Durbin,K., Duval,B., Eaves,K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127470 AATACTTTTCAAACATGTATTTTCTTAGTAGGATGAGGTAGTATACTTCTTTAACCCTAG 127411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               127530 GAAAAACCCATITAIGICIAAGAGCICIAIGCAGAIATCIAACTICIAAAGGAACAIAAA 127471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC122956 20-NOV-2002 246991 bp DNA linear HTG 20-NOV-2002 SECTION DOCYOGICUS CLONE CH230-17E8, WORKING DRAFT SEQUENCE. AC122956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89 AACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29 GACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 19.3%; Score 37; DB 14; Length 230625; Best Local Similarity 54.9%; Pred. No. 1.5; Matches 73; Conservative 0; Mismatches 60; Indels 0;
15145 60636: contig of 25492 bp in length (10637) 72181: contig of 11445 bp in length 72181: contig of 11445 bp in length 1282 72281: gap of unknown length 7315 227314: contig of 155033 bp in length 7315 227414: gap of unknown length 1415 228683: contig of 1269 bp in length 8684 228783: gap of unknown length 8784 230625: contig of 1842 bp in length. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AC122956.4 GI:25137800
HTG; HTGS PHASE2; HTGS DRAFT; HTGS_FULLTOP.
Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                           /organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xxef="taxon:10116"
/clone="HH230-171E18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72182. .72<u>2</u>81
/estimated length=unknown
224079. .2<u>2</u>7314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /estimated length=unknown 228684. .228783
                                                                                                                                                                                                                                                                                                                                                                                                                                                    6877. .6976
/estimated_length=unknown
35045. .35144
/estimated_length=unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60637, 60736 /
69timated_length=unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /estimated length=unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="wgs_contig"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  227414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127410 GACTAGGCAGAGG 127398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACTAAGCAAAAG 161
                                                                                                                                                                                                                                                                                                            1. .230625
            35145
60637
60737
72182
72282
227315
227415
228684
228684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               149
                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
SOURCE
ORGANISM
```

7

```
Egan, A., Escotto, M., Eugene, C., Evans, C.A., Falls, T., Fan, G., Fernandez, S., Finley, M., Flagg, N., Porbes, L., Foster, M., Foster, F., Fraser, C.M., Ganta, R., Garcala, A., Garner, T., Garza, M., Gebregeorgis, S., Finley, M., Flanglon, C., Hamilton, K., Hararep, P., Hamilton, C., Hamilton, K., Harvey, Y., Havlak, P., Hamilton, C., Hamilton, K., Harvey, Y., Havlak, P., Hames, A., Hodgson, A., Hogues, M., Hernandez, R., Hines, S., Hiady, S.L., Hodgson, A., Hogues, M., Jackson, L., Jacob, L., Jiang, H., Johnson, B., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Lous, S., Kally, S., Kelly, S., Khan, Z., King, L., Kovar, C., Kowis, C., Koris, S., Marida, R., Mallo, R., Martin, R., Mortis, S., Mulloan, M., Norten, S., Parks, K., Plopper, F., Polindexter, A., Popovic, D., Primus, E., Pu, L.-L., Plopper, F., Polindexter, A., Popovic, D., Primus, E., Pu, L.-L., Plopper, F., Rolifer, R., Polindexter, A., Popovic, D., Frimus, E., Pu, L.-L., Rives, C., Rodkey, T., Roles, M., Rose, R., Regier, M., Rose, R., Richards, S., Riggs, F., Shetty, J., Shartbey, J., Walder, R., Wald, J., Yabo, S., Vera, V., Villasana, D., Walder, R., Wald, J., Yabo, S., Dunn, D., Vu, F., Sharg, J., Zhou, J., Zhou, J., Zhou, J., Zhou, S., Dunn, D., Vu, L., Yabase, I., Phases, I., Phases, I., Phases, I., Phases, I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (26-MAY-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

3 (bases 1 to 246991)

3 (bases 1 to 246991)

3 Rat Genome Sequencing Consortium.

5 Rat Genome Sequencing Consortium.

5 Rat Genome Sequencing Consortium.

5 Lirect Submission

5 Nov 2002 1002 Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

6 Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

7 Nov 20, 2002 this sequence version replaced gi:23666770.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below respresents a scaffold in the Atlas assembly (a 'contigs acaffold'). Within each contig-scaffold, individual sequence contigs are ordered and chere may be sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence neads.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----- Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 246991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
```

COMMENT

```
Human DNA sequence from clone RP11-315C6 on chromosome 6 Contains the 5' end of the WASF1 gene for WAS protein family member 1, the gene for pre-mRNA splicing factor 17 (PRP17, EH binding protein 3, EHB3, CDC40), a novel gene and a CpG island, complete sequence.

ION AL671518.3 GI:18855253

N HG; CDC40, CpG island, EH binding protein; EHB3; KIAA0269; pre-mRNA splicing factor; PRP17; SCAR1; Verprolin-homologous protein; WAS protein family; WASF1; WAVE; WAVE1.
                                                                                                                                                                              * NOTE: Estimated insert size may differ from sequence length

* (see http://www.ngsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

* NOTE: This is a "working draft' sequence. It currently

* consists of 1 contigs. Gaps between the contigs.

* are represented as runs of N. The order of the pieces

* is believed to be correct as given, however the sizes

* of the gaps between them are based on estimates that have

* provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.

* Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6716 AATACTTTICAAACATGTATTTTCTTAGTAGGATGAGGTAGTATACTTCTTTAACCCTAG 6657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6776 gaaaaacccartrargrcraagagcrcrargcagararcraactrcraaggaacaraaa 6717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89 AACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29 GACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAA 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Euarchontoglires, Primates, Catarrhini,
                 Consensus guality: 225722 bases at least Q40
Consensus quality: 228759 bases at least Q30
Consensus quality: 228759 bases at least Q30
Consensus quality: 228759 bases at least Q30
Estimated insert size: 231948; sum-of-contigs estimation
Quality coverage: 7x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ch 19.3%; Score 37; DB 14; Length 246991; 1 Similarity 54.9%; Pred. No. 1.5; 73; Conservative 0; Mismatches 60; Indels 0;
version 0.990329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .239222)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="wgs_end_extension
clone_end:Sp6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      end_sequence:BH308764"
244729. .246991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="clone_boundary
clone_end:Sp6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="CH230-17E8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="wgs_contig"
complement (238413.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hominidae, Homo.
1 (bases 1 to 67395)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6656 GACTAGGCAGAGG 6644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . .246991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  149 GACTAAGCAAAAG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tracey, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
AL671518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
```

```
/jocus_tag="RP11-181P4.1-002"
/product="WAS protein family, member 1"
/product="WAS protein family, member 1"
/product="Match: ESTs: AA5i5859.1 AA868505.1 A1750422.1
AL526626.1 AL702231.1 AU142666.1 AU159926.1 AW071606.1
AW673234.1 AW96469.1 AW1663170.1 BG111973.1 BG176906.1
BG665254.1 BG8006840.1 BW465114.1
match: CDNAs: AP134303.1 D87459.1"
join (complement (7668.7750), complement (AL590009.10:129003.129163), complement (AL590009.10:114960...114994), complement (AL590009.10:110062...110215))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    join (complement (7266. .7476), complement (6425. .6569), complement (ALS90549.9:11123. .11220), complement (ALS90009.10:129003. .129163), complement (ALS90009.10:114860. .114994), complement (ALS90009.10:114860. .114994),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /locus tag="RP11-181P4.1-001"
join(complement (7266. .7476), complement (6425. .6569),
complement (ALS90009.10:129003. .129163),
complement (ALS90009.10:<114860. .114994))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="WASF1"
/locus_tag="RP11-181P4.1-006"
join(complement(7266. 7476).complement(6425. .6569),
complement(ALS90549.9;11123. .11220),
complement(ALS90009.10:129003. .129163),
complement(ALS90009.10:129003. .129163),
complement(ALS90009.10:114860. .114994),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 join (complement (7266. .7476), complement (6425. .6569), complement (ALS90009.10:129003. .129163), complement (ALS90009.10:<114860. .114994))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /Jocus tag="RP11-181P4.1-006"
/product="WAS protein family, member 1"
/note="match: ESTR: B1461486.1"
join (complement (7266. 7529),
complement (AL590009.10:129003. .129163),
complement (AL590009.10:114860. .114994),
complement (AL590009.10:10062. .110215),
complement (AL590009.10:100611. .109728),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         join (complement (7266 . 7529),
complement (ALS90009.10:129003. .129163),
complement (ALS90009.10:114860. .114994),
complement (ALS90009.10:110062. .110215),
complement (ALS90009.10:108611. .108728),
complement (ALS90009.10:108611. .107113),
           complement (ALS90009.10:108611. 108728),
complement (ALS90009.10:106941. 107113),
complement (ALS90009.10:104912. 105091),
complement (ALS90009.10:103122. 103750),
complement (ALS90009.10:103133. 102213))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complement (AL590009.10:106941. .107113), complement (AL590009.10:104912. .105091), complement (AL590009.10:103122. .103750), complement (AL590009.10:101353. .102213))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /locus tag="RP11-181P4.1-001"
/product="WAS protein family, member 1"
/note="match: EST8: B1462105.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="WASF1"
/locus_tag="RP11-181P4.1-004"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /locus_tag="RP11-181P4.1-007"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene="WASF1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene="WASF1"
                                                                                                                                                          /gene="WASF1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="WASF1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
        Submitted (13-MAY-2005) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 18A, UK. E-mail enquiries: vega@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk on Feb 21, 2002 this sequence version replaced gi:18491488.

The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:

Em:, EMBL; Sw.; SMXSSROT; Tr:, TREMBL; Wp:, WORWPEP; Information on the WORMPEP database can be found at http://www.asnger.ac.uk/Projects/Celegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 6, constructed by the Sanger Centre Chromosome 6 Mapping Group. Further information can be found at http://www.sanger.ac.uk/HGP/Chr6 Found at http://www.sanger.ac.uk/HGP/Chr6 Found at http://www.chori.org/bacpac/home.htm

Of Pieter de Jong. For further details see http://www.chori.org/bacpac/home.htm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one subclone; and the assembly was confirmed by restriction digest, except on the rare occasion of the clone being a YAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Clone_right_end: RP11-403119"
join(complement (7668. 7828), complement (6425. .6569),
complement (4974. .5013),
complement (AL590549.9:11123. .11220),
complement (AL590009.10:129003. .129163),
complement (AL590009.10:<114860. .114994))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  join(complement (7668. 7828), complement (6425. .6569), complement (ALS90549.9:11123. 11220), complement (ALS90009.10:129003. .129163), complement (ALS90009.10:114860. .114994),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. 67395
/organism="Homo sapiens"
/organism="Homo sapiens"
/do_trpe="genomic DNA"
/db xref="taxon:9606"
/chromosome="6"
/clone="RP11-3156"
/clone="RP11-3156"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Web site: http://www.sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: vega@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene="WASF1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center code: SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                             COMMENT
```

```
Sequencing Center, 4444 Forest Park
                                            Direct Submission
Submitted (30-DEC-2004) Genome Sequencing Center, 4444 Fore
Parkway, St. Louis, MO 63108, USA
On Dec 30, 2004 this sequence version replaced gi:45680671.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOTE: This is a 'working draft' sequence. It currently consists of 14 contigs. The true order of the pleces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                            Center: Washington University Genome Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1: contig of 1281 bp in length contig of unknown length app of unk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequencing vector: M13; 04
Sequencing vector: M13; 04
Sequencing vector: plasmid; 104
Chemistry: Dye-primer ET; 04 of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 312509 bases at least Q40
Consensus quality: 313620 bases at least Q30
Consensus quality: 313620 bases at least Q30

    1281
    note="assembly_name:Contig41"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="assembly_name:Contig44"
                                                                                                                                                                                                                                                                                                                /estimated_length=unknown
1382. .2759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/chromosome="17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="RP23-55C11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1281:
1381:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2759:
2859:
6382:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34160:
53672:
53772:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102782:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                173941:
317403:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13484:
19720:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137974:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                173841:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6482:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19820:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34060:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65274:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76706:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76806:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1282
1382
2860
2860
6383
6483
13485
119721
129821
26442
26442
26442
26442
34061
34061
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
34161
3416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                137875
137975
173842
173942
            Wilson, R.K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
    AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16043 TATTATAAAGTGGTTCTAGCAACTATACACTATAAAATCCTTTGGGAAGATATGAATGTG 16102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC154842
Mus musculus chromosome 17 clone RP23-55C11, WORKING DRAFT
SCEQUENCE, 14 unordered pieces.
AC154842 AC101665
AC154842 AC101665
AC154842. I GI:55900468
HTG; HTGS PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN.
Mus musculus (house mouse)
Mus musculus (conservation)
Mus musculus (conservation)
Sciutognathi; Mutcaia; Chordata; Craniata; Vertebrata; Buteleostomi;
Sciutognathi; Mutcaia; Burheria; Musiculae; Musiculae; Musiculae;
Sciutognathi; Mutcaiae; Musiculae; Musiculae; Musiculae;
Musiculae; Mutcaiae; Musiculae; Musiculae; Musiculae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95 TATAAAACGCGGGTTTTCGCAGAACATGCGCTAGTATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /locus tag="RP1-71D21.3-005"
join(7968. .8007,8211. .8460,21009. .21095,29385. .29514,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35 CATAATCTTGTCTGATTCGTCTATTTCAATACCTTCGGGGAAATAGATGGAAAAACCCT 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /produčt="WAS protein family, member 1"

/boce="match: EST9: BG719866.1 B1462401.1"

join(1768. 8007, 8211. 8460,21009. 21095,29385. 229514

35333. 35416,36911. 37050,38534. 38630,39960. 40099,

40913. 40987,43113. 43158,45529. 45630,47191. 47306,

47563. 47696,53994. 54070,56659. 56803,57781. 60044)
                                                                                                                                    //ocus taga=RP11-181P4.1-004"
//product="WAS Protein family, member 1"
/product="Match: ESTB: AA885055.1 AI154223.1 AI650710.1
/note="match: ESTB: AA885055.1 AI154223.1 AI650710.1
AV664100.1 AN379048.1 AN673234.1 BF796356.1 BG111973.1
BG778594.1 BG806840.1 BI554869.1 BI546590.1
BI545964.1 BI546470.1 BI550989.1 BI552818.1 BI989518.1
BM458302.1 H18215.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19.0%; Score 36.4; DB 8; Length 67395; 54.5%; Pred. No. 2.4; ive 0; Mismatches 61; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                    match: cDNAs: AF134303.1 BC019019.1"
join (complement (7266. 7497),
complement (AL590549.9:11123. 11220),
complement (AL590009.10:129003. 129163),
complement (AL590009.10:114860. 114994),
complement (AL590009.10:110062. 110215),
complement (AL590009.10:110062. 110215),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     join (complement (7266 . 7497), complement (A266949.9:11123. . 11220), complement (AL5906949.9:11123. . 11220), complement (AL590009.10:114860. . 114994), complement (AL590009.10:110062. . 110215), complement (AL590009.10:110062. . 110215), jene="WASP1"
complement (ALS90009.10:104912. .105091),
complement (ALS90009.10:103122. .103750),
complement (ALS90009.10:101353. .102213))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="WASF1"
/locus_tag="RP11-181P4.1-005"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /locus_tag="RP11-181P4.1-005"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequence of Mus musculus clone Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16103 GCTAAGCCTCATGT 16116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 317403)
Wilson, R.K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 317403)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAAAGTGCTTGT 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 54.5.
Factorial T3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
AC154842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
```

ઠ 셤 ò 셤 ò 셤

```
Mapping information for this clone was provided by Dr. Wes Warren, Department of Genetics, Mashington University, St. Louis MO. For additional information about the map position of this sequence, see http://genome.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The RPCI-43 BAC Library has been constructed by Chung-Li Shu. DNA was isolated from white blood cells obtained from a male chimpanzee (Pan troglodytes, Clint', Yerkes #C0471; birthdates 6-6-80). The clone and detailed information can be obtained from ResGen (http://www.resgen.com) or Pieter de Jong and co-workers at http://www.bacpac.chori.org.
                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
Submitted (26-SEP-2003) Department of Genetics, Washington
University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence was finished as follows unless otherwise noted: all regions were double stranded, sequenced with an alternate chemistry, or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by sequence from more than one subclone; and the assembly was confirmed by restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOTICE: This sequence may not represent the entire insert of this clone. It may be shorter because we only sequence overlapping clone sections once, or longer because we provide a small overlap between neighboring data submissions.
                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Buarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                           Submitted (05-MAR-2003) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, 4 (bases 1 to 170350)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequencing Center
                                                                                             Hominidae, Pan.

1 (bases 1 to 170350)
Shah, N., Meyer, R. and Bielicki, L.
The sequence of Pan troglodytes BAC clone RP43-22112
Unpublished (2001)
2 (bases 1 to 170350)
Sulston, J. E. and Wilson, R.
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEIGHBORING SEQUENCE INFORMATION:
This sequence is the entire insert of the clone.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center: Washington University Genome
Center code: WUGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Pan troglodytes"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="genomic_DN/db_xref="taxon:9598"
/chromosome="7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="RP43-22I12"
/clone_lib="RPCI-43"
HTG.
Pan troglodytes (chimpanzee)
Pan troglodytes
                                                                                                                                                                                                                                                                  3 (bases 1 to 170350)
Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MAPPING INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE INFORMATION:
                                                                                                                                                                                                                                                                                                                   Direct Submission
                      SOURCE
ORGANISM
                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                           JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                        JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93045 argeatriogorieridaaraecaraaraecaeraecerecarrrreaagecarederrar 93104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92985 GGCATTCTGGTGGCTTCACATGCAATCACTGCCTGATGATAATGTTGCCAGTATCTTGC 93044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         170350 bp DNA linear PRI 26-SEP-2003
Pan troglodytes BAC clone RP43-22112 from 7, complete sequence.
AC140952
AC140952.1 GI:28850254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73 GGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13 GGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 317403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_name:Contig47"
                                                                                                                                        note="assembly_name:Contig48"
                                                                                                                                                                               /estimated_length=unknown
13485. .19720
...assembly_name:Contig49"
                                                                                                                                                                                                                                                          /estimated_length=unknown
19821. .26341
/note="assembly_name:Contig50"
                                                                                                                                                                                                                                                                                                                                                                              note="assembly_name:Contig51"
                                                                                                                                                                                                                                                                                                                                                                                                                               /estimated_length=unknown
53773. .65274
/note="assembly_name:Contig53"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /estimated_length=unknown
65375. .76706
/note="assembly_name:Contig54"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   estimated length=unknown 16807. .102682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="assembly_name:Contig57",73842, .173941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_name:Contig58"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 2.3;
0; Mismatches
                                                                                                                                                                                                                                                                                                             26342. .26441
/estimated length=unknown
26442. .34060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /estimated_length=unknown 173942. .317403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 36.4;
Pred. No. 2.3
                                                                                         /estimated_length=unknown 6483. .13384
                      /estimated_length=unknown
2860. .6382
                                                                                                                                                                                                                                                                                                                                                                                                                     estimated_length=unknown
                                                                                                                                                                                                                                                                                                                                                                                                     .34160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5275. .65374
                                                                                                                                                                                                                                          9721. .19820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTGATTGCAAAA 93118
                                                                                                                                                                 3385. .13484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19.0%;
54.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTGATGACAACA 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                     4061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                            misc_feature
                                                                                                                        misc_feature
                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                              misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
AC140952
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gap
                                                                                                                                                                   gap
                                                                                                                                                                                                                                              gap
                                                                                                                                                                                                                                                                                                                         gap
                                                                                                                                                                                                                                                                                                                                                                                                       gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
```

ò

d ò 셤 ઠે

8 셤 ઠે 셤

```
145797 CCAGGCACTGGGTACATAAGTATCATATTTTTAATTTCTCTATGTTTAAAAACATTTTAT 145856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15 CCATGAAGIGGCTTGACAAGCATAATCTIGTCTGATTCGTCTATTTTCAATACCTTCGGG 74
                                                                                                                                                                                                                                                                                                                       * NOTE: This is a 'working draft' sequence. It currently consists of 4 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and the accession number will be preserved.

* B2248 82347: contig of 82247 bp in length

* 8248 83761 contig of 1413 bp in length

* 83761 83860: contig of 1413 bp in length

* 168250 171239: contig of 84389 bp in length

* 168350 171239: contig of 2890 bp in length

* 10cation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Assembly program: Phrap; version 0.990319
Consents quality: 170538 bases at least Q40
Consents quality: 17068 bases at least Q30
Consensus quality: 170663 bases at least Q20
Insert size: 152000; agarcae-fp
Insert size: 168000; pulse-field-gel
Insert size: 170939; sum-of-contigs
Quality coverage: 30.12x in Q20 bases; pulse-field-gel
Quality coverage: 26.78x in Q20 bases; pulse-field-gel
Quality coverage: 26.78x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 14; Length 171239;
           Chemistry: Dye-terminator Big Dye, 100% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .171239
/organism="Pan troglodytes"
/mol_type="genomic DNA"
/db_xref="taxon:9598"
/clone="RP43-22112"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      145857 ATAAGCATTTTGAAAACACTTAAAAAA 145883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
18.6%; Score 35.8; D
Best Local Similarity 63.2%; Pred. No. 3.7;
Matches 55; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /estimated length=unknown 82348. .83760
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /estimated_length=unknown
83861. .168249
/note="assembly_fragment"
168250. .168349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /estimated_length=unknown
168350. .171239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone lib="RP43"
1. .82247
/note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75 GAAATAGATGTGAAAACCCTTATAAAA 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          vector_side:right"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone_end:SP6 __vector_gide:left"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            83761. .83860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .82347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        쇰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hominidae; Pan.

18 (Dases 1 to 171239)

S. Akhter, N., Antonellis, A., Ayele, K., Beckstrom-Sternberg, S.M.,
Barhter, N., Antonellis, A., Bouffard, G. G., Breen, K., Brinkley, C.,
Brooks, S., Dietrich, N.L., Granite, S., Guan, X., Gupta, J.,
Haghighi, P., Hansen, N., Ho, S.-L., Idol, J.R., Karlins, B., Laric, P.,
Lee-Lin, S.-Q., Legaspi, R., Maduro, Q.L., Maduro, V.B.,
McCloskey, J.C., McDowell, J., Paguirigan, C., Pearson, R.,
Portnoy, M.B., Prasadd, A., Schueler, M.G., Stantripop, S., Thomas, J.W.,
Thomas, P.J., Touchman, J.W., Tsurgeon, C., Vogt, J.L., Walker, M.A.,
Wetherby, K.D., Wiggins, L., Young, A., Zhang, L.-H. and Green, B.D.
                                                                                                                                                                 144944 CCAGGCACTGGGTACATAAGTATCATATTTTTAATTTCTCTATGTTTAAAACATTTTAT 145003
                                                                                                                                                                                                                                                                                                                                                                                                                  AC092873 171239 bp DNA linear HTG 12-JUN-2002 Pan troglodytes clone RP43-22112, WORKING DRAFT SEQUENCE, 4 ordered
                                                                                                                      74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Euarchontoglires, Primates, Catarrhini,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence data in this record represents an 'enhanced' version of a Phase 2 submission. Specifically, the indicated order and orientation of each sequence contigl has been established using one or more of the following: read-pair data from individual subclones, overlaps with neighboring clones, alignment with available reference sequence (e.g., human), and/or confirmation by PCR testing. In addition, the sequence assembly is based on at least 8X average coverage in Q20 bases and has been reviewed to rule out gross misassemblies, the low-quality ends of sequence contigs have been trimmed away, and each base is associated with a Phrap-derived quality score.
                                                                                                                 15 CCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Green, E.D.
Direct Submission
Submitted (01-AUG-2001) NIH Intramural Sequencing Center, 8717
Grovemont Circle, Gaithersburg, MD 20877, USA
3 (bases 1 to 171239)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (12-JUN-2002) NIH Intramural Sequencing Center, 8717 Grovemont Circle, Gaithersburg, MD 20877, USA On Jun 12, 2002 this sequence version replaced gi:15799603.
     Score 35.8; DB 8; Length 170350; Pred. No. 3.7; 0; Mismatches 32; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequencing vector: plasmid; n/a; 100% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center: NIH Intramural Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Web site: http://www.nisc.nih.gov
Contact: nisc_zoo@nhgri.nih.gov
------ Project Information
                                                                                                                                                                                                                                                                             145004 ATAAGCATTTTGAAAACACTTAAAAA 145030
                                                                                                                                                                                                                       75 GAAATAGATGTGAAAACCCTTATAAAA 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center project name: ani
Center clone name: 022112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HTG; HTGS PHASE2; HTGS DRAFT.
Pan troglodytes (chimpanzee)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ĀC092873
AC092873.3 GI:21392490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 171239)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center code: NISC
  18.6%;
Similarity 63.2%;
5; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rect Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pan troglodytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
Query Match
Best Local Simi:
Matches 55; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                               RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                     AC092873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
```

ô

0; Сарв

```
83381 CCAGGCACTCGGTACATAAGTATCATATTTTTAATTTTCTCTATGTTTAAAACATTTAT 83440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC151799 183888 bp DNA linear PRI 27-APR-2005 Pan troglodytes BAC clone RP43-44D10 from chromosome 7, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15 CCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGG 74
0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="RP43"
1. .108807
AC092873 clone overlaps with GenBank Accession Number
AC092873 clone RP43-22112 (center project name ani)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="clone overlaps with GenBank Accession Number
AC092871 clone RP43-120E8 (center project name ank)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="clone overlaps with GenBank Accession Number AC033139 clone RP43-22A1 (center project name anh)" 21571. .21670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18.6%; Score 35.8; DB 14; Length 171391; 63.2%; Pred. No. 3.7; cive 0; Mismatches 32; Indels 0; C
                                                                                                                                                                                                                                                                                                                                                                                                               1. .171391
/organism="Pan troglodytes"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57730. .57829 ...
/estimated length=unknown
57830. .105820
/note="assembly_fragment"
105821. .105920
/estimated_length=unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /estimated length=unknown
21671. .57729
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          105921. .171391
/note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75 GAAATAGATGTGAAAACCCTTATAAAA 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="genomic_DNA"
/db_xref="taxon:9598"
/clone="RP43-44G6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vector side:right"
138190. .171391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . ccror_side:left"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence.
AC151799.2 GI:55168552
HTG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                clone_end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .21570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                l Similarity
55; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
AC151799/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gap
                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                    NCE 1 (bases 1 to 171391)

ORS Benjamin, B., Blakesley, R., Ayele, K., Beckstrom-Sternberg, S.M., Benjamin, B., Blakesley, R.W., Bouffard, G.G., Breen, K., Brinkley, C., Benokas, D. Jottrich, N.L., Granite, S., Gupta, J., Hansen, N., Ho, S.-L., Idol, J.R., Karlins, E., Laric, P., Lee-Lin, S.-Q., Legaspi, R., Maduro, Q.L., Maduro, V.B., Margulles, R.H., Mastello, C., Maduro, Q.L., Maduro, Y.B., Margulles, R.H., Mastello, C., Paguirigan, C., Pearson, R., Portnoy, M.E., Prasad, A., Schueler, M.G., Stantripop, S., Thomas, J.W., Tsurgegon, C., Vogt, J.L., Walker, M.A., Wetherby, K.D., Wiggins, L., Young, A., Zhang, L.-H. and Green, B.D. In Upublished

E. J. Marchen, R.D., Maggins, L., Zhang, L.-H. and Green, B.D.
                                                                                AC098646 171391 bp DNA linear HTG 13-UUN-2002
Pan troglodytes clone RP43-44G6, WORKING DRAFT SEQUENCE, 4 ordered
                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Butheria, Euarchontoglires, Primates, Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The sequence data in this record represents an 'enhanced' version of a Phase 2 submission. Specifically, the indicated order and orientation of each sequence contigl has been established using one or more of the following: read-pair data from individual subclones, overlaps with neighboring clones, alignment with available reference sequence (e.g., human), and/or confirmation by PCR testing. In addition, the sequence assembly is based on at least 8% average coverage in Q20 bases and has been reviewed to rule out gross misassemblies, the low-quality ends of sequence contigs have been trimmed away, and each base is associated with a Phrap-derived quality score.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequencing vector: plasmid; n/a; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Absembly program: Phrap; version 0.990319
Consensus quality: 170643 bases at least Q40
Consensus quality: 170930 bases at least Q30
Consensus quality: 171055 bases at least Q20
Insert size: 150000; agarose-fp
Insert size: 171091; sum-of-contigs
Quality coverage: 11.37x in Q20 bases; agarose-fp
Quality coverage: 11.37x in Q20 bases; sum-of-contigs
Quality coverage: 11.07x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (13-JUN-2002) NIH Intramural Sequencing Center, 8717
Grovemont Circle, Gaithersburg, MD 20877, USA
On Jun 13, 2002 his sequence version replaced gi:16506408.

Center: NIH Intramural Sequencing Center
Center code: NISC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
Submitted (27-0CT-2001) NIH Intramural Sequencing Center, 8717
Grovemont Circle, Gaithersburg, MD 20877, USA
3 (bases 1 to 171391)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Web site: http://www.nisc.nih.gov
Contact: nisc zoo@nhgri.nih.gov
------ Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center project name: anj
Center clone name: 044G06
                                                                                                                                                                             AC098646.2 GI:21397305
HTG: HTGS PHASE2; HTGS DRAFT.
Pan troglodytes (chimpanzee)
Pan troglodytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 171391)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Green, E.D.
                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                       RESULT 12
AC098646
                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                          ACCESSION
```

0; Gaps

HTG 08-JUL-2004

ORGANISM

SOURCE

REFERENCE AUTHORS TITLE JOURNAL

REFERENCE AUTHORS TITLE JOURNAL

TITLE JOURNAL

TITLE REFERENCE AUTHORS

COMMENT

REFERENCE AUTHORS

```
Bukaryota; Metazoa, Chordata; Craniata; Vertebrata; Buteleostomi,
Mammalia; Butheria; Buarchontoglires; Primates; Catarrhin;
Cercopithecidae; Cercopithecinae; Papio.

1. (Dases 1 to 181622)
ButfaatG, G.O. Brinkley, Brookfes, S., Coleman, B.,
Coleman, H., Daki, N., Engle, J., Guan, X., Gupta, J., Haghighi, P.,
Han, J., Hansen, N., Ho, S.-L., Hu, P., Hurle, B., Idol, J.R., Jones, C.,
Karlins, E., Kim, H., Kwong, P., Larico, P., Larson, S., Lee-Lin, S.-Q.,
Legaspi, R., Madden, M., Maduro, O.L., Maduro, V. B., Margulies, B. H.,
Masiello, C., Maskeri, B., McDowell, J., Mullikin, J. C., Paguirigan, C.,
Schandler, K., Schueler, M.G., Shah, K., Sison, C., Stantripop, S.,
Thomas, J.W., Thomas, P.J., Taipouri, V., Vogt, J.L., Wetherby, K.D.,
Voung, A. and Green, B.
                                                                                                                                                         100188 CCAGGCACTGGGTACATAAGTATCATATTTTTAATTTCTCTATGTTTAAAAACATTTTAT 100129
                                                                                                                                                                                                                                                                                                                                                                                                                                   AC149460 181622 bp DNA linear HTG 08-JUL-20
Papio anubis clone RP41-441E1, WORKING DRAFT SEQUENCE, 4 ordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sequence data in this record represents an 'enhanced' version of a Phase 2 submission. Specifically, the indicated order and orientation of each sequence contig has been established using one or more of the following: read-pair data from individual subclones, overlaps with neighboring clones, alignment with available reference sequence (e.g., human), and/or confirmation by PCR testing. In addition, the sequence assembly is based on at least 8X average coverage in Q20 bases and has been reviewed to rule out gross misassemblies, the low-quality ends of sequence contigs have been trimmed away, and each base is associated with a Phrap-derived quality score.
                                                                                                15 CCATGAAGIGGCTTGACAAGCATAAICTTGTCTGATTCGTCTATTTTCAATACCTTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (03-JUN-2004) NIH Intramural Sequencing Center, 8717
Grovemont Circle, Galthersburg, MD 20877, USA
3 (bases 1 to 181622)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
Submitted (08-JUL-2004) NIH Intramural Sequencing Center, 8717
Grovemont Circle, Galthersburg, MD 20877, USA
On Jul 8, 2004 this sequence version replaced gi:48057351.
                                      32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----- Genome Center
Center: NIH Intramural Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NISC Comparative Sequencing Initiative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Web site: http://www.nisc.nih.gov
Contact: nisc_zoo@nhgri.nih.gov
------ Project Information
         Pred. No. 3.7;
                                                                                                                                                                                                                                                         100128 ATAAGCATTTTGAAAACACTTAAAAA 100102
                                   0; Mismatches
                                                                                                                                                                                                                   75 GAAATAGATGTGAAAACCCTTATAAAA 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center clone name: 441E01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AC149460.2 GI:50057884
HTG; HTGS PHASE2; HTGS DRAFT.
Papio anubis (olive baboon)
Papio anubis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center project name: hbl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center code: NISC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 181622)
   63.2%;
                                   55; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Green, B.D
                                                                                                                                                                                                                                                                                                                                                                      RESULT 14
AC149460/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                         셤
                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                             셤
                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The RPCI-43 BAC Library has been constructed by Chung-Li Shu. DNA was isolated from white blood cells obtained from a male chimpanzee (Pan troglodytes, 'Clint', Yerkes #C0471; birthdates e.6-6.80). The clone and detailed information can be obtained from ResGen (http://www.resgen.com) or Pieter de Jong and co-workers at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mapping information for this clone was provided by Dr. Wes Warren, Department of Genetics, Mashington University, St. Louis MO. For additional information about the map position of this sequence, see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This sequence was finished as follows unless otherwise noted: all regions were double stranded, sequenced with an alternate chemistry, or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by sequence from more than one subclone; and the assembly was confirmed by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Submitted (27-APR-2005) Washington University School of Medicine,
Genome Sequencing Center, 4444 Forest Park Parkway, St. Louis, MO
                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                             Wilson,R.K.
Direct Submission
Direct Submission
Submitted (01-OCT-2004) Genetics, Genome Sequencing Center, 4444
Forest Park Parkway, St. Louis, MO 63108, USA
3 (bases 1 to 183888)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (02-NOV-2004) Genetics, Genome Sequencing Center, 4444 Forest Park Parkway, St. Louis, MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center: Washington University Genome Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          On Nov 2, 2004 this sequence version replaced gi:53386473.
                                                                                                                Hominidae, Pan.

1 (bases 1 to 183888)

Adams, S. and Bielicki, L.

Unpublished (2001)

2 (bases 1 to 183888)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This sequence is the entire insert of the clone Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center code: WUGSC
Web site: http://genome.wustl.edu
Contact: submissions@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .183888
/organism="Pan troglodytes"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------ Summary Statistics
Center project name: C_PT044D10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Unresolved bases"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="genomic_DN
/db_xref="taxon:9598"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone="RP43-44D10"
/clone_lib="RPCI-43"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genome Center
   troglodytes (chimpanzee)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           http://www.bacpac.chori.org.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /chromosome="7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              http://genome.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MAPPING INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Pan troglodytes
Pan troglodytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wilson, R.K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOTICE:
```

Sequencing vector: plasmid; n/a; 100% of reads

DB 8; Length 183888;

18.6%; Score 35.8;

Query Match

ungure

ORIGIN

FEATURES

```
Sattus norvegicus

Bukaryota Netzcasi Chordata Craniata; Vertebrata; Euteleostomi;

Mammalia Eutherata; Burachontoquiltes (Iltres Rodentia)

Sciucognathi, Waricaea, Marcidas, Murinae; Rattus

Cciucognathi, Waricae, Marcidas, Murinae; Rattus

Allan, C. Allan, H. Alabroofs, S. Adin, A. Anguishon, D.

Anlan, C. Allan, H. Alabroofs, S. Adin, A. Anguishon, D.

Anland, C. Allan, H. Alabroofs, S. Adin, A. Anguishon, D.

Anland, C. Allan, H. Alabroofs, S. Adin, A. Anguishon, D.

Anyalebechi, V. Buhay, C. Burch, P. Brate, M. Barnstead, Benshmed, F. Biswalo, K. Buhay, C. Burch, P. Burch, P. Brown, M.

Baldwin, D. Buhay, C. Burch, P. Burch, P. Brown, M.

Cardens V. Charez, D. Chen, G. Chen, K. Calen, T. Center, J.

Cardens V. Charez, D. Chen, G. Chen, K. Calen, C. Decerich, D.

Delgado, M. Charez, D. Chen, G. Chen, K. Carder, J. Beaves, K. Burch, M. Land, M. L. Davis, C. Coyle, M. Cree, A. Desoua, D.

Delgado, M. L. Davis, C. Chen, G. Chen, Y. Chen, Z. Decerich, D.

Delgado, M. L. Boris, G. Davy-Carroll, L. De Ands, C. Dederich, D.

Delgado, M. L. Boris, G. Burch, P. Wallago, M. Porbes, L. Beaves, K. Barser, K. Escotto, M. Stegen, C. A. Falla, M. L. Band, M. L. Ganera, M. Ganera, M. Gabisi, M. Cockrell, R. Gars, M. Gars, M. Ganera, M. Gabisi, M. Malland, M. Hamill, C. Hamilton, C. Manjou, M. Mahandwal, L. Liu, Y. Liu, W. Johnson, R. Johnson, R. Johnson, R. Johnson, R. Johnson, C. Lopez, J. Liu, J. Liu, Y. Liu, W. Mahindarten, M. Martin, E. Martin, K. Martinay, S. Mederson, M. Martin, K. Martinay, S. Mederson, M. Martin, K. Martin, K. Martin, K. Martin, C. Mall, M. Mahindarten, M. Mahandwal, L. London, P. Longacre, S. Lopez, J. Makan, M. Mandy, M. Mandy, M. Martin, K. Martin, K.
                                                   AC116068 231844 bp DNA linear HTG 13-MAY-2003
Rattus norvegicus clone CH230-66D24, WORKING DRAFT SEQUENCE, 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Worley, K.C.

Direct Submission

Submitted (24 MAR-2002) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA

3 (Bases 1 to 231844)

Rat Genome Sequencing Consortium.
                                                                                                                                                                       ACIIGOGB.5 GI:30579201
HTG; HTGS PHASE1; HTGS DRAFT; HTGS_FULLTOP.
Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished
2 (bases 1 to 231844)
                                                                                                                       unordered pieces.
                                                             LOCUS
DEFINITION
                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
   RESULT 15
AC116068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                  ACCESSION
                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73060 ritriciacritriscerceretriacaasciacaascaaarisaaricriscerrascasaraaas 73001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73000 CCTATTTTTCAGCATAATATTGCTTACCATGATTAAAATAGAAATCAGCTAAGCTTGAT 72941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                42 TTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAA 101
                                                                                                                                                                                                                                                                                  * NOTE: This is a 'working draft' sequence. It currently consists of 4 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor.

* This sequence will be replaced by the finished sequence as soon as it is available and the accession number will be preserved.

* 2623 2722; gap of unknown length

* 2623; contig of 129521 bp in length

* 13244 13244; contig of 19075 bp in length

* 13244 16247; gap of unknown length

* 16248 162547; gap of unknown length

* 162548 118622: contig of 19075 bp in length.

Location/Qualifiers

/ Organism="Peppio anubis"
// Ab xref="taxon:9555"
// Clone | Type="genomic DNA"
// Clone | Type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 102 CGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               132244. .132343-
/estimated_length=unknown
/132344. .162447.
/note="assembly_fragment"
132495. .181622
/note="clone overlaps with GenBank Accession Number
ACL50199 clone RP41-18917 (center project name hbk)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
Chemistry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0.990319 Consensus quality: 180653 bases at least Q40 Consensus quality: 180918 bases at least Q30 Consensus quality: 181167 bases at least Q20 Insert size: 180000; agarose-fp Insert size: 181322; aum-of-contigs Quality coverage: 10.99x in Q20 bases; agarose-fp Quality coverage: 10.99x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 18.2%; Score 35; DB 14; Length 181622; Best Local Similarity 53.2%; Pred. No. 6.6; Matches 74; Conservative 0; Mismatches 65; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone lib="RP41" |
/note="BAC resource: http://bacpac.chori.org/"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment
missing T7 clone end on 3' end of insert"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .2622
/note="assembly_fragment
clone_end:SP6
vector_side:left"
2623. .2722
/estimated length=unknown
2723. .132243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /estimated length=unknown
162548. .181622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72940 TrcTTTACTGGTGGACCAA 72922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        162 TGCTTGTCCCTGACCCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
```

ô

Gaps

ô

us-10-782-899-1_copy_1_192.rge

```
9334 GCCTTTAAGTGTTTAATAAGCAAACCACAGTCTTATTTGTCTTTACAACAGCTTCAT 9393
                                                                                                                                                                                                                                                                                                                                                            9394 TGAAATGTAAGTCACATGCCATAAAATTCGGGGGTTTTTCCACACTTATGAATTCGGTGG 9453
                                                                                                                                                                                                                                                                                                                       74 GGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATC 133
                                                                                                                                                                                                            14 GCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGG 73
                                                                                               th 18.2%; Score 35; DB 14; Length 231844; Similarity 55.3%; Pred. No. 6.5; 68; Conservative 0; Mismatches 55; Indels 0;
                 /estimated_length=unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7, 2006, 12:15:05
                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Search completed: March
Job time: 1788.23 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9454 ATT 9456
                                                                                                                                                                                                                                                                                                                                                                                                                                  134 ATT 136
                                                                                                  Query Match
                                                                                                                                                     Matches
                                           ORIGIN
                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
Direct Submission

Submitted (13-MAY-2003) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On May 13, 2003 this sequence version replaced gi:24818872.
The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Mithin each contig-scaffold', individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence conly contigs will be indicated in the feature table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a "working draft' sequence. It currently consists of 3 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as arbitrary. Gaps between the contigs are represented as Truns of N, but the exact sizes of the gaps are unknown.

This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Assembly program: Atlas 3.0;
Consensus quality: 226512 bases at least Q40
Consensus quality: 227588 bases at least Q30
Consensus quality: 228638 bases at least Q20
Estimated insert size: 242654; sum-of-contigs estimation
Quality coverage: 10x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 229543: contig of 229543 bp in length 229643: gap of unknown length 4 230670: contig of 1027 bp in length 1 230770: gap of unknown length 1 231844: contig of 1074 bp in length. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .231844
/organism="Rattus norvegicus"
/mol type="genomic DNA"
/db xref="taxon:10116"
/clone="CH230-66D24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .2343
/note="wage end_extension
clone_end:T7"
complement(2941. .3750)
/note="clone_boundary
clone_end:T7"
site:EcoRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   229544. .229643
/estimated length=unknown
230671. .230770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center clone name: CH230-66D24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="wgs_end_extension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                end_sequence:BH264906"
182235. .225520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _sequence:BH264909"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="clone_boundary
clone_end:Sp6
site:EcoRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           227512. .229543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         229544
229644
230671
230771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bource
        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                      COMMENT
```

This Page Blank (uspto)

Ads47100 Bacterial

Aa832482 Human gen Aan4652 Wouse gen Ad167110 Novel Lac Ad167125 Novel Lac Ad513448 Human can Ab26999 Pinus rad Ab71889 Rice gene Ac135459 Rice gene Ac135459 Rice gene Ac135459 Rice gene Ac135459 Rice gene Ac13545 Rice gene Ac13545 Rice Gene Ach39167 L. pneumo Ach3546 Enterococ Ad857789 Bacterial Acc60804 Gene sequadk62093 Disease tAb12762 Drosophil Ab11638 Bacterial Ab10526 Drosophil Ab103916 Drosophil Aman aman ach Ab13773 Human activation activ

OM nucleic

Run on:

Seguence:

Searched:

Database

Result No.

υu υ

 $\circ \circ \circ \circ \circ$

```
Solid cancer therapy with anaerobic bacteria of Bifidobacterium sp. by tumor tissue specific delivery of a DNA encoding for an antitumor active protein or its precursor.
                                                                                                                                                                                                                                                                                                                                                                       Solid cancer; anaerobic bacteria; antitumour active protein; cancer; gene therapy; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention describes a method of treating a solid cancer with anaerobic bacteria by site specific delivery of DNA encoding an
                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= a
/product= "Cancer gene therapy protein"
                                                                                                                                                                                                                                                                                                                                                           DNA encoding cancer gene therapy associated protein.
    AAS32482
1 ACK44652
3 AD167110
3 AD167126
AB226996
AD33448
ACK13689
                                                                                                                                                                                                                                                        ALIGNMENTS
                                                                                                                                     ACH25462
ADH85446
                                                                                                                                                     ADS57789
ACC60804
ADK62093
                                                                                                                                                                                                  ABL06226
ADT47758
                                                                                                                            ACN44046
                                                                                                                                                                                ABL22762
ABL11638
                                                                                                                                                                                                                    ABL03916
                                                                                                                                                                                                                              AAK83773
                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
193. .474
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 10; Page 16; 21pp; Japanese.
                                                                                                                                                                                                                                                                                                     ABK52324 standard; DNA; 600 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-SEP-2001; 2001JP-00290187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-SEP-2000; 2000JP-00287688
                                                                                                                                                                                                                                                                                                                                          (first entry)
1332
7017
25519
10303
10304
115829
1824
                                                             1824
2000
2000
2510
                                                                                                 110000
110000
200622
260027
                                                                                                                                      487
                                                                                                                                                                                                                                                                                                                                                                                                        Bifidobacterium longum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-448201/48.
P-PSDB; AAU96807.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (AMAN/) AMANO A.
(FUJI/) FUJIMORI M.
JP2002097144-A.
                                                                                                                                                                                                                                                                                                                                          13-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-APR-2002.
ABK52324;
                                                                                                                                                                                                                                                                                   RESULT 1
                                                                                                                                                                                                                                                                                             ABK5232
O
                                                                                                                                                        0000000
                                                                                                                                                                                                                                                                                                               Abk52324 DNA encod
Abg61850 Bifidobac
Aac4140 Nucleotid
Aac37526 Human sec
Ab121958 Drosophil
Continuation (16 o
Continuation (3 of
Aak6947 Human imm
Aal16181 Human rep
Ab198746 Human tes
Ab18746 Human aci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Acn50973 Cotton an
Adj44041 Plant CDN
Abv51855 Human pro .
Aah52605 S. epider
Aah54121 S. epider
Aak37564 Human bon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ac138062 Rice stre
Continuation (3 of
                                                                       (without alignments)
2822.383 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                    1 gctgggggggggggcatga......tgacccaagaaggatgcttt 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
                                                             March 7, 2006, 10:55:04; Search time 453.383 Seconds
        GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                 9993994
                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                              4996997 segs, 3332346308 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABK52324
ABQ81850
AAA64140
AAC27526
ABC21958
ABC62145
ABC62147
AAC6447
ABL98746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAK37564
ACL38062
ACN44014_2
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                           - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACN50973
ADJ44041
ABV51855
AAH52605
AAH54121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADX83784
                                                                                                 US-10-782-899-1_COPY_1_192
                                                                                                                                   IDBNTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                               geneseqn2002bs:*
geneseqn2003as:*
geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                  geneseqn2003ds:*geneseqn2004as:*
                                                                                                                                                                                                                                                                                                                                                            geneseqn2003cs:*
                                                                                                                                                                                                                                                                                                                                                                                      geneseqn2004bs:
                                                                                                                                                                                                                                                                                                    genesegn2001as:*genesegn2001bs:*genesegn2002as:*
                                                                                                                                                                                                                                                                                                                                                                                              geneseqn2005s:*
                                                                                                                                                                                                                                                                           genesegn1980s:*
genesegn1990s:*
                                                                                                                                                                                                                                                                                             geneseqn2000s:*
                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03
                                                                                                                                                                                                                                                                  N_Geneseq_21:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                515
2000
110000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2717
110000
110000
18272
18272
18272
18272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    583
1569
3204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          156638
50000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4.7.1
10.00
116.20
116.22
116.22
115.20
115.80
115.80
115.70
115.70
115.70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Perfect score:
                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
```

þ

ï

Gapa

118

```
used for preventing and/or treating diarrhoes brought about by pathogenic bacteria and/or rotavirus. The carrier is a food composition selected from milk, yourt, curd, cheese, fermented milks, milk based fermented products, ice-creams, fermented cereal based products, milk based fermented powders, infant formula, pet food or a pharmaceutical composition selected from tablets, liquid bacterial suspensions, dried oral supplement, wet coral supplement, dry tube feeding or wet tube feeding.

(1) is useful in DNA arrays or chips to carry out analysis of the expression of the Bildobacterium selated nuclectide sequences given in the Sequence listing from the present invention but not mentioned further within the specification. N.B. The sequence data for this patent is not represented supplied by the European Patent Office
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119 ACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCC 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beta-tubulin antigen; inner ear protein; Meniere's disease; autoantibody; chronic ear disease; autoimmune disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New beta-tubulin antigen in the membranous structure of the inner ear, reactive with antibodies of patients with Meniere's disease, for diagnosing Meniere's disease and distinguishing this disease from other autoimmune ear diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      142164 GCTGGGCGGCGGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TC---AATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            142104 TCATACCCCCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGGGGGTTTTGGCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GCTGGGCGCGCCGTGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT
                                                                                                                                                                                                                                                                                                                                                                                         Seguence 156638 BP; 32098 A; 46491 C; 46415 G; 31634 T; 0 U; 0 Other;
acid bacterium Bifidobacterium longum NCC2705 (CNCM I-2618)
                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 156638;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 175.2; DB 6; Length
Pred. No. 3.5e-50;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleotide sequence of a beta-tubulin antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAA64140 standard; DNA; 50000 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYTE-) UNIV TENNESSEE RES CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141984 AAGAAGGATGCTTT 141971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-FEB-2000; 2000WO-US004795.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 91.2%;
Best Local Similarity 97.4%;
Matches 189; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179 AAGAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-558400/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200050593-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-AUG-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAA64140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YOO TJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAA64140/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        888888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention describes a polynucleotide (I) comprising a sequence of a Bifidobacterium genome selected from the nucleotide sequence of a Bifidobacterium genome selected from the nucleotide sequence of the sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel polynucleotide comprising Bifidobacterium genome sequence useful as a probe or primer for detecting and/or identifying Bifidobacterium longum
                                                                                                                                                                                                                                                                                                                                                        TCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCGCTAGTATCATTGACAACATGACAAGCAAAAGTGCTTGTCCCCTGACCCAA 180
                                                                                                                                                                                                                                                                                                                       TCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                    ATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCCAA 180
                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bifidobacterium longum NCC2705; Bifidobacterium; bacterial; antidiarrheic; antibacterial; inhibitor of Salmonella; detection; dentification; lactic acid bacterium; diarrhoea; pathogenic bacteria; rotavirus; food composition; pharmaceutical composition; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bifidobacterium longum NCC2705 related nucleotide sequence SEQ ID:1106
                                                                                                                                                                                                                                                      1 GCTGGGCGCGCGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGTTTCGTCTATTT
                                                                                                                                                                           Gaps
     antitumour active protein or its precursor. This sequence encodes a
                                                                                                                                                                           ;
0
                                                                           Seguence 600 BP; 132 A; 165 C; 161 G; 142 T; 0 U; 0 Other;
                                                                                                                                                                           Indels
                                                                                                                           Score 192; DB 6;
Pred. No. 3.4e-57;
                                                                                                                                                                             ö
                                                                                                       100.0%; Scc. 100.0%; Pred. No. ... 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; SEQ ID NO 1106; 80pp; English.
                              cancer gene therapy associated protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABQ81850 standard; DNA; 156638 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-JAN-2001; 2001EP-00102050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-JAN-2001; 2001EP-00102050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (NEST ) SOC PROD NESTLE SA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAGGATGCTTT 192
                                                                                                                                                                        Matches 192; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          In a biological sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bifidobacterium longum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-668397/72.
                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EP1227152-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABQ81850;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABQ81850/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                          8
```

```
WO200171042-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genes from Dr
Interactions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-SEP-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Venter JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABL21958;
                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                geneg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABL21958,
 888888888
                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                  26376 Tririciacririecciccicriracaagciacaaccaaricaariciccrcagcagaarigaag 26317
                                                                                                                                                                                                                                                                                                                                                                                                                     26316 ccrarriricaccaraaararrgcrrgccarcarraaraaaaracaarraaccarcar 26257
                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                                                                                                        161
                                                 antigen of the membranous structure of the inner ear protein, and is reactive with antibodies from patients having Meniere's disease.

Meniere's disease is a chronic ear disease with unknown etiology. Serum from patients suffering from this disease contain autoantibodies against a 30 kDa cochlear protein antigen. The disease is believed to be an autoimmune disease. The beta-tubulin antigen is useful as a target substance in diagnosing or detecting Meniere's disease and in distinguishing this disease from other autoimmune ear diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; 5' EST; expressed sequence tag; secreted protein; cDNA isolation; gene therapy; chromosome mapping; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is one of a large number of 5' ESTs derived from mRNAs encoding secreted proteins. No ORF has yet been conclusively identified within the present sequence. The 5' ESTs were prepared from total human RNAs or polyA+ RNAs derived from 30 different tissues. EST sequences usually correspond mainly to the 3' untranslated region (UTR) of the mRNA because they are often obtained from oligo-dT primed cDNA libraries. Such ESTs are not well suited for isolating cDNA sequences
                                  present sequence encodes a beta-tubulin antigen. The protein is an
                                                                                                                                                                                                                                                                                                                   TTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGGAAAAACCCCTTATAAAA
                                                                                                                                                                                                                                                                                                                                                                                       CGCGGGTTTTCGCAGAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acid that is a 5' expressed sequence tag (5' EST) for obtaining cDNAs and genomic DNAs that correspond to 5'ESTs and for diagnostic, forensic, gene therapy and chromosome mapping procedures.
                                                                                                                                                                                                           Sequence 50000 BP; 17281 A; 9480 C; 8791 G; 14448 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                          17.4%; Score 33.4; DB 3; Length 50000; ilarity 52.5%; Pred. No. 3.2; Conservative 0; Mismatches 66; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO 31601; 71pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human secreted protein 5' EST, SEQ ID NO: 31601.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Giordano J;
Claim 3; Page 74-97; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Duclert A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26256 rrcrrracregregaccaa 26238
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCTTGTCCCCTGACCCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC27526 standard; cDNA; 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-FEB-2000; 2000EP-00200610.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0122487P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dumas Milne Edwards J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-500381/45
                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EP1033401-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-OCT-2000
                                                                                                                                                                                                                                                                             73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                       102
                                                                                                                                                                                                                                                                                                                                                                                                                                                            162
                                                                                                                                                                                                                                                                                                                   42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAC27526;
                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
&X66666666668XX
                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                   ઠ
```

```
ö
derived from the 5' ends of mRNAs and even in those cases where longer clonk sequences have been obtained, the full 5' UTR is rarely included. 5' ESTs are derived from mRNAs with intest 5' ends and can therefore be used to obtain full length cDNAs and genomic DNAs. 5' ESTs are also used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18
                                                                                                                                                                                                                                                                                                                                                   99 rcarciogaricintronorcritaggiariraaaargcigiarircaaraarirkgggac 158
                                                                                                                                                                                                                                                                                                                                                                                                78 ATAGATGTGAAAACCCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTG 137
                                                                                                                                                                                                                                                                                                                                                                                                                                         159 ATATATGTCATTTCACATATATACAGATGTGTATCAGGGTGACATTCCAAAAGTGCACTG 218
                                                                                                                                                                                                                                                                                                          18 TGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAA 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invention useful in developmental biology and in alucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA sequences (ABL16175) and the encoded proteins (ABB7737-ABB72072). The sequence does not be the printed specification, but was obtained in electronic form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d nucleic acid detection reagent for detecting 1000 or more Drosophila and for elucidating cell signaling and cell-cell
                                                                               diagnostic, forensic, gene therapy and chromosome mapping procedures. They are used to obtain upstream regulatory sequences and to design expression and secretion vectors
                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drosophila; developmental biology; cell signalling; insecticide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Drosophila melanogaster genomic polynucleotide SEQ ID NO 17347.
                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                    Length 278;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; SEQ ID NO 17347; 21pp + Sequence Listing; English
                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                            Sequence 278 BP; 82 A; 44 C; 43 G; 108 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                           74;
                                                                                                                                                                                                                       DB 3;
                                                                                                                                                                                                                    Score 32.6; DB Pred. No. 0.63; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      138 ATGACAACATGGACTAAGCAAAAGTGCTTGT 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               219 CTGAGTTAGAGGTATATGTATTTGTAATTTT 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Myers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABL21958 standard; DNA; 2717 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PWD,
                                                                                                                                                                                                                       17.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-MAR-2001; 2001WO-US009231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-MAR-2000; 2000US-0191637P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-JUL-2000; 2000US-00614150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                           Local Similarity 51.0
les 77; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pharmaceutical; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       굼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drosophila melanogaster.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Adams M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-656860/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (PEKE ) PE CORP NY.
```

```
29177 cargaacregacacgectriccarrercargerarreregaagagecarrigaaaacaer 29118
                                                                                                                                                                                                                                                                                                       29117 GATTACGCAATGAAGTTCCGGAAACTGCTTCTACTTTTGCTGAAATGATTATTGCCGAT 29058
                                                                                                                                                                                                                                                                      95 TATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                      35 CATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, immune; haematopoietic; immune/haematopoietic antigen; cancer; cytostatic; gene therapy; vaccine; metastasis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immune/haematopoietic antigen genomic sequence SEQ ID NO:24259
                                                                                                                                                                       Gapa
   LOCUS ABQ67195 Accession Abg67195
                                                                                                                                                                       ö
                                                                                                                                     DB 6; Length 110000;
                                                                                                                                                                     75; Indels
                                                                                                                                                                                                                                                                                                                                                                            29057 GCTTCTGTAAAGATGCCAAAACAAAGAAGA 29026
                                                                                                                                                                                                                                                                                                                                            155 GCAAAAGTGCTTGTCCCCTGACCCAAGAAGGA 186
                                                                                                                                                                       0; Mismatches
                                                                                                                                     Score 32;
Pred. No.
                                                   210000
310000
410000
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAK69447 standard; DNA; 18272 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUL-2000; 2000US-0216647P.
07-JUL-2000; 2000US-0216880P.
11-JUL-2000; 2000US-0217495P.
14-JUL-2000; 2000US-0218299P.
26-JUL-2000; 2000US-0220953P.
26-JUL-2000; 2000US-0220963P.
       5 fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-MAR-2000; 2000US-0189874P.
17-WAR-2000; 2000US-01900Y6P.
18-APR-2000; 2000US-0198123P.
19-MAY-2000; 2000US-0205515P.
07-JUN-2000; 2000US-0209467P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0225268P.
2000US-0225270P.
2000US-0225447P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-JUN-2000; 2000US-0214886P.
30-JUN-2000; 2000US-0215135P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0224519P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-FEB-2000; 2000US-0184664P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0224518P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JAN-2001; 2001WO-US001354
                                                                                                                                     16.7%;
                                                   100001
200001
300001
400001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                       77; Conservative
Sequence split into 5
    Pragment Name
    AB067195 0
    AB067195 1
    ABQ67195 2
    ABQ67195 3
    ABQ67195 3
                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200157182-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-JUL-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAK69447;
                                                                                                                                         Match
                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 8
AAK69447/c
                                                                                                                                                                          Matches
                                                                                                                                          Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ******
                                                                                                                                                                                                                                         윰
                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                             쇰
                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
ABQ67195_2/c
Continuation (3 of 5) of ABQ67195 from base 200001 (Listeria innocua contig DNA sequence
                                                                                                                                                                                                                                                                                                         of ABQ69245 from base 1500001 (Listeria innocua DNA sequence #68)1 fragments LoCUS ABQ69245 Accession Abq69245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29778 CATGAACTCGGACACGCCTTCCATTCTCATGTTATTCGGGAAGAGCCATTTGAAAACACT 29837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29838 GATTACGCAATGAATGTTGCGGAAACTGCTTTACTTTTGCTGAAATGATTATTGCCGAT 29897
                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACATGGACTAA 154
                                                                                                                                                         369 ATAGTTACAGATACATAAAATACATACATAGCAAAAGGTACATATATAGAGACTTAAA 310
                                                                                                                         39 ATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGGGAAAAACCCTTATA 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35 CATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 6; Length 110000;
                                                        DB 4; Length 2717;
                                                                                                                                                                                          AAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAA 144
                                                                                                                                                                                                                          Aracectretrircacreaarratreaaracearrrragaeaa 264
                        Sequence 2717 BP; 835 A; 555 C; 503 G; 824 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                         IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTTCTGTAAAGATGCCAAAACAAAGAAGA 29929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAAAAGTGCTTGTCCCCTGACCCAAGAAGGA 186
                                                      Score 32.4; DB Pred. No. 2; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 32;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2910000
3010000
3011208
                                                                                                                                                                                                                                                                                                                                                            110000
210000
310000
410000
510000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1210000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2110000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2410000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  710000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   810000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1010000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1110000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1410000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1210000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1610000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1710000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1810000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16.7%;
                                                        16.9%;
56.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2800001
2900001
3000001
                                                                                                                                                                                                                                                                                                                                                                             100001
200001
300001
                                                                                                                                                                                                                                                                                                                                                                                                                               400001
500001
600001
700001
800001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1000001
1100001
1200001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1400001
1500001
1600001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2400001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1000067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       700001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        200001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         500001
                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                   Definition (16 of 31) of A Page 10 of A Page 245 of A Page
                                                                      Local Similarity
nes 60; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABQ69245_14
ABQ69245_15
ABQ69245_16
ABQ69245_17
ABQ69245_18
ABQ69245_19
ABQ69245_19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABO69245_21
ABO69245_22
ABO69245_23
ABO69245_24
ABO69245_25
ABO69245_26
ABO69245_26
ABO69245_27
ABO69245_28
ABO69245_28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         77;
                                                                                                                                                                                            66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                        Query Match
                                                                                                                                                                                                                                                                                              ABQ69245 15
Continuation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                             Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
          X S
                                                                                                                            δ
                                                                                                                                                          a
                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                               8
```

```
2000US - 0226279P

2000US - 022668P

2000US - 02268P

2000US - 0227182P

2000US - 0229287P

2000US - 022934P

2000US - 0229513P

2000US - 023945P

2000US - 023043P

2000US - 0231244P

2000US - 0231244P

2000US - 0231243P

2000US - 0231243P
                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0241787P
                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0246474P.
2000US-0246475P.
2000US-0246476P.
                                                                                                                                                                                                                                                                                                                                                                 2000US-0239935P
                                                                                                                                                                                                                                                                                                                                                                               2000US-0240960P
                                                                                                                                                                                                     2000US-0232400P
                                                                                                                                                                                                                                                                                                                                                         2000US-0237040P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0246528P
2000US-0246532P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -NOV-2000;
-NOV-2000;
                                                                                                                                                                                                                                                                                                                                          -OCT-2000;
-OCT-2000;
-OCT-2000;
-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                         -OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-NOV-2000;
                                                                                                                                                                                                                                                                                          29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOV-2000;
                                                                                                                                                                                                                                                                                                        SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOV-2000
```

```
AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)

amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
activity, and can be used in gene therapy and vaccine production. (I)
proteins and polymucleotides may be used in the prevention, disgnosis and
treatment of diseases associated with inappropriate (I) expression. For
example, they may be used to treat disorders associated with decreased
conspension by rectifying mutations or deletions in a patient s genome
that affect the activity of (I) by expressing inactive proteins or to
supplement the patients own production of (I). Additionally, (I)
polymucleotides may be used to produce the secreted (I), by inserting the
protein. (I) proteins and polymucleotides may be used to prevent,
diagnose and treat immune/haematopoietic-related diseases, especially
cancers and cancer metastases of haematopoietic antigen genomic
cancers and cancer metastases of haematopoietic antigen genomic
cancers and cancer metastases of haematopoietic antigen genomic
sequences from the present invention. AAK54942 to AAK87595 and AAM82169
represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 24259; 3071pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 18272 BP; 3601 A; 5274 C; 5400 G; 3997 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Barash SC, Ruben SM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17 NOV-2000; 20000S-0249299F.
17 NOV-2000; 2000US-0249300P.
01 - DEC-2000; 2000US-0250160P.
05 - DEC-2000; 2000US-0251931P.
05 - DEC-2000; 2000US-0251931P.
06 - DEC-2000; 2000US-0251931P.
06 - DEC-2000; 2000US-0251931P.
06 - DEC-2000; 2000US-0251951P.
06 - DEC-2000; 2000US-0251951P.
08 - DEC-2000; 2000US-0251956P.
08 - DEC-2000; 2000US-0251969P.
                                2000US-0246610P.
2000US-0246611P.
2000US-024920TP.
2000US-024920P.
2000US-024920P.
2000US-024921P.
2000US-024921P.
2000US-024921P.
2000US-024921P.
2000US-024921P.
2000US-024921P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0249245P.
2000US-0249264P.
2000US-0249265P.
2000US-0249297P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0249244P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-483426/52
08-NOV-2000; 208-NOV-2000; 208-NOV-2000; 208-NOV-2000; 217-NOV-2000; 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-DEC-2000;
11-DEC-2000;
05-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rosen CA,
```

```
08-SEP-2000; 2000US-0231242P.
08-SEP-2000; 2000US-0231243P.
08-SEP-2000; 2000US-0231243P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-023230BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023364PP.
14-SEP-2000; 2000US-023403PP.
14-SEP-2000; 2000US-023403PP.
14-SEP-2000; 2000US-023403PP.
15-SEP-2000; 2000US-023403PP.
15-SEP-2000; 2000US-023403PP.
15-SEP-2000; 2000US-023403PP.
15-SEP-2000; 2000US-02363PP.
13-OCT-2000; 2000US-02363PP.
13-OCT-2000; 2000US-02363PP.
13-OCT-2000; 2000US-023403PP.
13-OCT-2000; 2000US-0234647PP.
13-OCT-2000; 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0249218P
2000US-0249244P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-NOV-2000; 2
17-NOV-2000; 2
17-NOV-2000; 2
     CGAGCAGAGAGAGAAGAAAGGCAGAGAATGTGGAGGTGTCAGCAGACAGCTGGGGCAGG 17029
                                                                                                                                                                                                                                                                                                                             Human; reproductive system related antigen; reproductive system disorder; cancer; gene therapy; ds.
                                                                                                                                                                                                                                                                                        Human reproductive system related antigen DNA SEQ ID NO: 8869.
                                                                               AACACCCATGAGAACAGGGACTCA 17005
                                                         131 ATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                    AAL06181 standard; DNA; 18272 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0179065P.
2000US-0180628P.
2000US-0186350P.
2000US-0189874P.
2000US-0198123P.
2000US-0198123P.
2000US-0205515P.
2000US-0205513P.
2000US-0205513P.
2000US-020564P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0225447P.
2000US-0225757P.
2000US-0225758P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0239513P.
2000US-0230437P.
2000US-0230438P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0227182P
2000US-0227009P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-JAN-2001; 2001WO-US001339
                                                                                                                                                                                                                                                        21-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-02257
                                                                                                                                                                                                                                                                                                                                                                                                                    WO200155320-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-JUL-2000;

11-JUL-2000;

26-JUL-2000;

26-JUL-2000;

26-JUL-2000;

14-AUG-2000;

16-AUG-2000;

16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-JAN-2000;
04-PEB-2000;
24-PEB-2000;
02-MAR-2000;
16-MAR-2000;
17-MAR-2000;
19-MAY-2000;
19-MAY-2000;
20-JUN-2000;
20-JUN-2000;
07-JUN-2000;
07-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-AUG-2001
                                                                                            17028
                                                                                                                                                                                                                       AAL06181;
                        17088
                                                                                                                                                g
                                                           ò
```

```
22-AUG-2000; 2000US-0227009P.
30-AUG-2000; 2000US-0227009P.
30-AUG-2000; 2000US-022984P.
01-SEP-2000; 2000US-0229344P.
01-SEP-2000; 2000US-0229344P.
01-SEP-2000; 2000US-0229344P.
01-SEP-2000; 2000US-0229344P.
05-SEP-2000; 2000US-0229509P.
06-SEP-2000; 2000US-0229509P.
06-SEP-2000; 2000US-0231244P.
08-SEP-2000; 2000US-023144P.
08-SEP-2000; 2000US-0231413P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-023191P.
14-SEP-2000; 2000US-023191P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-SEP-2000; 2000US-0232400P.
14-SEP-2000; 2000US-023241IP.
14-SEP-2000; 2000US-0233063P.
14-SEP-2000; 2000US-0233064P.
21-SEP-2000; 2000US-0233065P.
                                                     2000US-0184664P
2000US-0184664P
2000US-0189874P
2000US-0198076P
2000US-029467P
2000US-0218486P
2000US-0218486P
2000US-0218480P
2000US-021647P
2000US-021647P
2000US-021647P
2000US-0216480P
2000US-0216480P
2000US-0216480P
2000US-0216480P
2000US-0218480P
2000US-0218480P
2000US-0218480P
2000US-0218480P
2000US-022964P
2000US-022964P
2000US-022964P
2000US-022964P
2000US-022964P
2000US-022964P
2000US-022964P
2000US-022964P
2000US-022964P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0225447P.
2000US-0225757P.
2000US-0225758P.
     17-JAN-2001; 2001WO-US001329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0225759P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0226868P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0232399P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0234997P
2000US-0234998P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0236368P
2000US-0236369P
                                      31 - JAN - 2000; 24 - FEB - 2000; 24 - FEB - 2000; 24 - FEB - 2000; 25 - MAR - 2000; 21 - MAR - 2000; 21 - MAY - 2000; 21 - MUL - 2000; 21 - JUL - 2000; 21 - J
                                                                                                                                                                                                                                                                                                                                                                                            14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-AUG-2000;
22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-SEP-2000;
26-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                           14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-SEP-2000;
     17088 CGAGCAGAGAGAGATGAAAAGGCAGAGAATGTGGAGGTGTCAGCAGACAGCTGGGGCAGG 17029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGT 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Isolated nucleic acid molecule encoding a reproductive system antigen is used in preventing, treating or ameliorating a medical condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention provides the protein and coding sequences of a number of human reproductive system related antigens. These can be used in the prevention and treatment of reproductive system disorders, including cancer. The present sequence is a genomic sequence encoding a protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; testicular antigen; testes; cancer; metastasis; immune disorder; reproductive system disorder; gene therapy; cardiovascular disorder; respiratory disorder; neurological disorder; gastrointestinal disease; infection; cytostatic; gene; de.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 18272 BP; 3601 A; 5274 C; 5400 G; 3997 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 8869; 1297pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human testicular antigen encoding DNA fragment SEQ ID NO: 3398.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 4; Length 18272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 16.2%; Score 31.2; DB Best Local Similarity 60.7%; Pred. No. 12; Matches 51; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17028 AACACCCATGAGAACAGGGACTCA 17005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131 ATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL98746 standard; DNA; 18272 BP
                                                                                                                                                                                                                                                                                                                                                                                                             Barash SC, Ruben SM
                                                                                                                                                                                                                                      08-DEC-2000; 2000US-0251868P.
08-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-0251999P.
11-DEC-2000; 2000US-0251990P.
05-JAN-2001; 2001US-0254097P.
                 2000US-0249264P.
2000US-0249297P.
2000US-0249297P.
2000US-0249300P.
2000US-0250160P.
2000US-0250160P.
2000US-025131P.
2000US-025131P.
2000US-0251388P.
2000US-0251988P.
2000US-0251988P.
2000US-0251988P.
                                                                                                                                                                                                                                                                                                                                                                         (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-465570/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200155317-A2
                                                     17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
01-DEC-2000;
05-DEC-2000;
05-DEC-2000;
06-DEC-2000;
06-DEC-2000;
08-DEC-2000;
08-DEC-2000;
08-DEC-2000;
08-DEC-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                             Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABL98746;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL98746,
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

Gaps

```
17088 ceaecaeaeaeaeaeareaaaaecaeaeaeaaaaarereeaeerercaecaeaeaecreeeee 17029
                                                                                                                                                                                                                                                                                                                                                                                                                                        71 CGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGT 130
                                                                                        The present invention provides the protein and coding sequences of 973 human testicular antigens, and fragments of their genomic sequences. The sequences can be used in the treatment of cardiovascular, urinary system, reproductive system, immune, respiratory, neurological and gastrointestinal disorders, infections, and particularly cancer, especially testicular cancers. The present sequence is a DNA encoding a protein fragment of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Recombinant DNA; transgenic animal; milk; alpha glucosidase; gene; ds.
                                                                                                                                                                                                                                                                                          Sequence 18272 BP; 3601 A; 5274 C; 5400 G; 3997 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                          Length 18272;
for preventing, diagnosing and/or treating testicular cancer
                                                                                                                                                                                                                                                                                                                                                                                          33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /number= 2
1881. .3883
/*tag= e
/note= "Translational Btart codon"
4427. .5042
                                                                                                                                                                                                                                                                                                                                  ch 16.2%; Score 31.2; DB 4; Il Similarity 60.7%; Pred. No. 12; 51; Conservative 0; Mismatches 33.
                                                  Disclosure; SEQ ID NO 3398; 766pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17028 AACACCCATGAGAACAGGGACTCA 17005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           131 ATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag= c
/note= "Alu repeat"
3849. .4426
/*tag= d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= i
/note= "Alu repeat"
6851. .7016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human acid alpha glucosidase gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADX83784 standard; DNA; 26167 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1185. .3848
/*tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /number= 2
5043. .5188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag= j
/number= 4
7017. .7100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /number= 1
3281. .3541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /number= 3
5189. .6851
/*tag= h
/number= 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5940. .6217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-MAY-2005 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       number=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    *tag=
                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADX83784;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            exon
                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADX83784/
ID ADX8:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HILLILLI LILLI LIL
     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleic acids encoding 973 human testicular antigen polypeptides, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ruben SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0249211P
2000US-0249213P
2000US-0249213P
2000US-0249214P
2000US-0249216P
2000US-0249216P
2000US-0249216P
2000US-0249218P
2000US-0249218P
2000US-0249264P
2000US-0249265P
2000US-0249265P
2000US-0249265P
2000US-0249265P
2000US-0249265P
2000US-0249265P
2000US-0249265P
2000US-0249265P
2000US-0249265P
2000US-024920P
2000US-024920P
2000US-024920P
2000US-024920P
2000US-024920P
2000US-024920P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US - 0246477P

2000US - 0246578P

2000US - 0246524P

2000US - 0246525P

2000US - 0246527P

2000US - 0246511P

2000US - 0246611P

2000US - 0249209P

2000US - 0249209P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0251868P.
2000US-0251869P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0251856P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0251989P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35-JAN-2001; 2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-483232/52
  29-SEP-2000, 02-OCT-2000, 02-OCT-2000, 02-OCT-2000, 02-OCT-2000, 03-OCT-2000, 03-OC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                -NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .7-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOV-2
```

/*tag= k /number= 4 71017197 /*tag= 1	/number= 5 71987590 /*tag= m	/number= 5 75917710 /*tag= n		/number= 6 77907908 /*tag= p		/*tag= q /number= 7 79988129	/"cag= r /number= 8 81309238 /*tag= e	/rumber= 8 92399349	/'rag= r /number= 9 /350, .10020	/*tag= u /number= 9 10021. 10134	/*tag= v /number= 10 1013510234	/*tag= w /number= 10	1023510319 /*tag= x	/number= 11 1032011275	/*cag= Y /number= 11 1127611393	/*tag= z /number= 12	11554110/0 /*tag= aa /*:mber= 12	/*tag= ab			/*tag= ad /number= 14 12321 12510	ae -	/	Π.	/number= 15 1303013308 /*tag- ah	# · #
FT FT exon	FT FT intron FT	FT FT exon	FT FT intron FT	FT FT exon FT	FT intron	FT FT exon	F1 FT intron FT	FT FT exon	FT FT intron	FT FT exon	FT FT intron		FT exon FT	FT FT intron	FT FT exon		FT	FT exon	FT intron	FT FT exon	PT FT intron	1	FT exon	FT FT intron FT	FT FT misc_feature	FT FT exon

640016907 640016907 mimba= 14	16908 . 17057 /*tag= ak	number= 17 7058. :17504 *tag= al	number= 17 175051769 *tag= am	/number= 18 17670 - 17964 /*rac - 17964	number= 18 796518117	/ under ac/ /number 19 18118 . 18584	rusy- number= 19 cons_splice= (5'site:NO, 3'site:YES)	1858519194 1858519194 / number= 20	18642. 18644 1+1	_cay= "Translational stop codon" 917219177		ray: ac. 00c6 = "CT-rich region" 00c6020384	/*tag= au /note= "Half Alu repeat" 2038520675	*tag= av note= "Alu repeat" 068520834	*tag= aw note= "Half Alu repeat" 084521132	/*tag= ax //nore="Alu repeat" 2200022320	/*tag= ay /note= "hlu repeat" 2267522964	"tag= az note= Alu repeat" 4464924923 *tag= ba note= "Alu repeat"			99US-00454466.	98US-0110850P. 99US-0122550P.	CORP.		18.
intron 1	exon 1	intron 1	exon 1	intron 1	exon 1	intron 1		exon 7	misc_signal 1	/ polyA_signal 1	misc_feature 1	/ / misc feature 2	feature	feature	/ / misc_feature 2	/ / misc_feature 2	/ / misc_feature 2	/ //misc_feature 2 /	US6858425-B1.	22-FEB-2005.	03-DEC-1999; 99	04-DEC-1998; 98 02-MAR-1999; 99	(GENZ) GENZYME C	Heus JJ;	WPI; 2005-170882/18

```
cc comprising a nucleic acid of the invention. The cotton ESTs are useful as molecular tags to isolate genetic regions, to isolate genes, to map comprise to determine gene function and to determining whether genes are members of a particular gene function and to determining whether genes are used for isolating a variety of agronomically significant genes as associated with plant growth, quality, yield, and could also serve as links in metabolic and catabolic pathways. The nucleic acid molecules are lowered for identifying genes important in initiating and maintaining seed germination or that may be used to mitigate stresses encountered during seed germination. The ESTs additionally enable the acquisition of promoters and cis-regulatory elements which will be useful to express of gronomically significant genes in these tissues and/or other tissues, and also permits the acquisition of molecular markers useful in breeding schemes, genetic and molecular mapping, and in cloning of agronomically significant genes. The nucleic acid molecules are further useful for detecting the presence or quantity of a protein by tissue printing. The cotton variety Nucottonials androcalm part of a protein or wariety Nucottonials androcalm part of the printed from a cotton variety Nucottonials androcalm part of the printed conversed and also but was obtained in electronic format directly from the US specification, but was obtained in electronic format directly from the US patent office at sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 AAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCAT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plant; gene; ss; transcription; plant genome augmentation; cereal; soybean; alfalfa; sunflower; canola; cotton; peanut; tobacco; sugar beet; smalze; barley; sorghum; rice; wheat; crop plant; insecticide resistance; stress tolerance; cold tolerance; drought tolerance; plant nutrition; apical dominance; dwarfism; early flowering; antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27 ATATATATCATATCTTTCATTAACTTCTGGTTCTGGACTACATAATCCTTATTATCAT 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 30.6; DB 13; Length 466; Pred. No. 4; 0; Mismatches 39; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 466 BP; 138 A; 105 C; 81 G; 142 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136 TGATGACAACATGGACTAAGCAAAAGTGCTTGT 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADJ44041 standard; cDNA; 549 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15.9%;
58.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-SEP-2001; 2001US-0325277P.
26-SEP-2001; 2001US-0325448P.
04-APR-2002; 2002US-0370620P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-SEP-2002; 2002US-00260238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BUDWORTH P.
MOUGHAMER T.
BRIGGS S P.
COOPER B.
GLAZEBROOK J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plant cDNA #5041.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GOFF S A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2004016025-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-JAN-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antifungal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADJ44041;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MOUG/)
(BRIG/)
(COOP/)
(GLAZ/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BUDW/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 1:
ADJ44041,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                         The invention relates to a recombinant polynucleotide comprising an alpha S1-casein promoter or an alpha glucosidase promoter operably linked to a heterologous coding sequence. The recombinant polynucleotide is useful for designing transgenes for expression of human acid alpha glucosidase in the milk of transgenic animals. It is also useful for the design of
                                                                                                                                                                                                                                                                                                       71 CGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGT 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cotton; plant; BST; expressed sequence tag; transgenic plant; androecium; variety Nucottoni3B; library LIBS828; molecular tag; molecular marker; genetic mapping; molecular mapping; seed germination; plant growth; plant quality; plant yield; plant breeding; tissue printing; 88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to 17880 cotton expressed sequence tags (ESTB; ACM5220-ACM63099). The ESTB were isolated from CDNA libraries generated from primed or non-primed seeds from variety DP50B, mature seeds from variety Coker 312 Boswell 96 Field, and androecium tissue, gynoecium tissue, developing fibres, carpel walls and septa from variety Noceton33B. The invention also relates to substantially purified proceins or their fragments encoded by nucleic acid molecules of the invention, and to transformed plants having a nucleic acid construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isolated nucleic acid molecule that encodes a plant protein or its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fragment, useful for isolating a variety of agronomically significant genes associated with plant growth, quality or yield, and as molecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cotton androecium tissue EST Clone ID: LIB3828-002-Q1-N6-F6, SEQ:5754.
                                                                                                                                                                                                                                                                      Gaps
              expression of human acid alpha glucosidase in the milk of transgenic
                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                DB 14; Length 26167;
                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                    0; Mismatches 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fincher KL, Ziegler TE;
                                                                                                                                                                                                              16.2%; Score 31.2; I ilarity 60.7%; Pred. No. 14; Conservative 0; Mismarch-
                                                                                                                                                                                                                                                                                                                                                                                                                          17898 AACACCCATGAGAACAGGGACTCA 17875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; SEQ ID NO 5754; 34pp; English.
                                                                        Disclosure; SEQ ID NO 1; 49pp; English.
                                                                                                                                                                                                                                                                                                                                                                                        131 ATCATTGATGACAACATGGACTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-DEC-2001; 2001US-00021323.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACN50973 standard; cDNA; 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-DEC-2000; 2000US-0255619P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-DEC-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Feng PCC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (DEIK/) DEIKMAN J.
(FENG/) FENG P C C.
(FINC/) FINCHER K L.
(ZIEG/) ZIEGLER T E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-479808/45.
                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 51; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gossypium hirsutum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tags to map genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2004123340-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-JUN-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Deikman J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACN50973;
                                    animale.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##X#XXXXXXXX
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                             ठ
                                                                                                                                                                                                                                                                                                                                                                                        ò
```

Gaps

ô

```
169 C 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              138 Ċ 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200134809-A2
                                                                                                                       13-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-SEP-2001
                                                      17-FEB-2000;
16-MAR-2000;
    23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-MAY-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH52605;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAH52605
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                        The invention relates to plant nucleotide sequences that direct seed., leaf- and/or stem., panicle., root- or pollen-specific or -preferential or constitutive transcription of an operatively linked nucleic acid segment. The invention also relates to a method for augmenting a plant segment. The invention also relates to a method for augmenting a plant genome and a method of identifying a gene, where its expression is altered in the seed, leaf, stem, panicle, pollen, root or is constitutive in a plant cell. The plant is a cereal, e.g. soybean, alfalfa, sumflower, canola, cotton, peanut, tobacco or sugar beet, preferably maize, barley, encode are useful for manipulating crop plants to alter or improve phenotypic characteristics, to produce large quantities of oil or protains, to incur resistance to insecticides, viruses or fungi, and to incur stress tolerance (e.g. salt, cold or drought) to ensure the plants have a high nutritional value with reduced apical dominance or dwarfism, carly flowering or altered metabolic pathways. This sequence represents a plant nucleic acid of the invention. Note: The sequence data for this patent did not form part of the princed specification but was obtained in electronic format directly from USPTO at sequata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             167
                                                                                                                                               New rice promoter, useful for manipulating crop plants to alter or improve phenotypic characteristics, e.g. produce large quantities of oil or proteins, resistance to insecticides, virus or fungi, stress tolerance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 235 GAATCATTTGAGTTCAAGACTGCTGAAGAAAAGTTATCGAAGGTCTTGACCAAGCAGTG 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     175 ATGACGATGAATAAGGGAGAGATTGCTTTGGTGACAATTCCACCTGAATATGCCTTCTTG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; prostate cancer; cytostatic; carcinogen; pharmacodyanamic marker;
pharmacogenomic marker; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCCTTATAAAACGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            108 TITICGCAGAAACAIGCGCTAGIAICATIGAIGACAACAIGGACTAAGCAAAAGIGCIIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                Glazebrook J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 549 BP; 136 A; 143 C; 88 G; 177 T; 0 U; 5 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                Briggs SP, Cooper B, Glaz
ns J, Provart N, Ricke D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ch 15.9%; Score 30.6; DB 12;
1 Similarity 51.9%; Pred. No. 4.3;
69; Conservative 0; Mismatches 64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human prostate expression marker cDNA 51846.
                                                                                                                                                                                                                   Example 13; SEQ ID NO 5041; 230pp; English.
                                                                                T, Brigg
Kreps J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABV51855 standard; cDNA; 583 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCCCTGACCCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rccacreaarcaa 103
                                                                                                                                                                                        high nutritional value.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                 Moughamer
                                                                                           Katagiri F,
                                                                                                                       WPI; 2004-190374/18.
KATAGIRI F.
KREPS J.
PROVART N.
RICKE D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200160860-A2
                                                      ZHU T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-SEP-2002
                                                                                Budworth P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABV51855;
                                                                                             Goff SA,
                         (PROV/)
(RICK/)
(ZHUT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABV51855
 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
```

```
The invention relates to an isolated nucleic acid molecule (I) comprising a nucleotide sequence given in Tables 1-9 (ABV0010-ABV62213) of the pecification or its complement. (I) is useful for: (a) assessing whether a patient is affilicted with prostate cancer; (b) monitoring the progression of prostate cancer in a patient; (c) assessing the efficacy of a therapy for inhibiting prostate cancer in a patient; (e) selecting a composition for inhibiting prostate cancer in a patient; (e) selecting a composition for inhibiting prostate cancer in a patient; (f) assessing the prostate call carcinogenic potential of a compound; (g) determining whether prostate cancer has metastasized in a patient; (h) assessing the aggressiveness or indolence of prostate cancer in a patient; (I) is also useful as a pharmacodyanamic or pharmacogenomic marker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49 ATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCCTTATAAAACGCGGGT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109 TTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGT 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78 rrcegcagaaarrrcaagaararcararrrcagarrraggaaaacrcaaaagrrrrar 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Staphylococcus epidermidis SRI strain; infection; diagnosis; vaccination; endocarditis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel isolated nucleic acid molecule associated with cancerous state of prostate cells and correlating with presence of prostate cancer, useful for detecting presence of prostate cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18 AGTÓTTÓTAGNATTAATTAACGCGGGGATTGAGTTCATAAAAGCTATATTTCTCATGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S. epidermidis open reading frame nucleotide sequence SEQ ID NO:603.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 30.4; DB 5; Length 583;
Pred. No. 5.2;
0; Mismatches 57; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 583 BP; 210 A; 79 C; 104 G; 188 T; 0 U; 2 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 10067-10068; 11750pp; English,
                                                                                                                                                                                                                                                                                                                                                                                     (MILL-) MILLENNIUM PREDICTIVE MEDICINE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Monahan JB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAH52605 standard; DNA; 1569 BP.
                                                                                                                                                           25-MAY-2000; 2000US-0207454P.
09-JUN-2000; 2000US-0211314P.
18-JUL-2000; 2000US-0219007P.
20-PEB-2001; 2001WO-US005171
                                                                                                                                                                                                                                                                                                 2000US-0255281P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15.8%;
52.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Staphylococcus epidermidis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Schlegel R, Endege WO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-662795/76.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
```

ô

77

```
AAH52304 to AAH53970 represent nucleic acids (I) encoding polypeptides (II), given in AAG81454 to AAG83120, from Staphylococcus epidermidis. (I) and have antibacterial activity and therefore can be used in vaccination. The nucleic acids (I) may be used to produce the S. epidermidis polypeptides (II) via the production of vectors containing them which are used to produce hosts cells which express the polypeptides. The polypeptides (II) (and/or nucleic acids) may then be used to vaccinate subjects and to raise antibodies against the bacteria. The polypeptides may also be used to assay for other inhibitors of their activity and therefore identify compounds that may be used for the activity and therefore identify compounds that may be used for the creatment of S. epidermidis infections, e.g. endocaditis. AAH53971 to AAH55090 represent specifically claimed S. epidermidis genomic DNA polymucleotide sequences from the present invention. AAH55091 to AAH55098 represent coligonucleotide sequences and primers which are used in the seeming of the present invention. N.B. The present invention specifically claims all the polymucleotide sequences given in the sequence listing of the present specification, however the sequence listing only goes up to SEQ ID NO:4455 to 4472, no sequences are given to the disclosure for SEQ ID NO:4465 to 4472, no sequences are present
                                                                                                                                                                                                                                                                                                           Nucleic acids encoding polypeptides from Staphylococcus epidermidis, useful for vaccinating against infections, e.g. endocarditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 15.8%; Score 30.4; DB 4; Length 1569; Best Local Similarity 57.3%; Pred. No. 8.1; Matches 55; Conservative 0; Mismatches 41; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1569 BP; 616 A; 186 C; 274 G; 493 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                         Claim 8; Page 195; 2188pp; English.
                        09-NOV-2000; 2000WO-US030782.
                                                                        99US-0164258P.
                                                                                                                            (GLAX ) GLAXO GROUP LTD
                                                                                                                                                                                                                               WPI; 2001-316495/33.
P-PSDB; AAG81755.
                                                                        09-NOV-1999;
                                                                                                                                                                                 Kimmerly WJ;
X#X#X#X#X#X##X##X##X##X##X##X##X##X##X
```

87 ATATGAATATGAACAAATAATGAGCGATCCATATCTCTCACTGCTTATAAAACTAATGT 146 109 TTTCGCAGAAACATGCGCTAGTATCATTGATGACAA 144 셤 ò

49 ATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCCTTATAAAACGCGGGT 108

ઠ

Gaps

ô

7, 2006, 12:31:05 Search completed: March Job time: 457.383 secs

```
CE144436 673 bp DNA linear GSS 25-SEP-2003 tigr-gas-dog-17000371273067 Dog Library Canis familiaris genomic, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                            CR961164 Homo Bapi
CP904613 A0424D01-
CN452104 UI-M-HNO-
CO433921 UI-M-HXO-
CN459909 UI-M-HBO-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Kirkness BF
The Institute for Genomic Research
Department of Bukaryotic Genomics, TIGR, 9712 Medical Center Drive,
Rockville, MD 20850, USA
Tel: 301-838-0208
Fax: 301-838-0208
Email: ekirknes@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                  CK390292 X0817C11-
CCA865065 B0120F01-
CD553071 B0159C01-
CD553973 B0156F09-
CN62591 B016F09-
CN62591 B016F09-
CN67248 A0971D08-
CN6713 PUEDB53TD
AQ017410 CIT-HSP-2
CC67713 PUEDB53TD
AQ017410 CIT-HSP-2
CC674178 B0251E12-
CC674178 B0251E12-
CC674177 B0235A12-
CA86187 RCC11-74
B656280 B8658280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGA 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kirkness, B.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K., Ruskness, B.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K., Rusk, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and Venter, J.C.
The dog genome: survey sequencing and comparative analysis Science 301 (5641), 1898-1903 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21.2%; Score 40.8; DB 9; Length 673; 56.8%; Pred. No. 0.1; ive 0; Mismatches 57; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          =
=
=
=
=
=
=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                               CR961164
CF904613
CN455104
CO433921
CN459909
                                      CM690065
CA885628
CA885291
CD553973
CM68291
CM676248
CM67624
CM6764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CE144436.1 GI:35257693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Canis familiaris (dog)
Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 56.8
Matches 75; Conservative
_
=
=
                                           717.33
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
27.13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14512627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Canis.
23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CE144436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
  ORIGIN
                                                                                                                                                                                                                         υu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DU019646 276061 TO
BH039236 RPCI-24-2
DN671770 CFW64-F08
BC542199 602571637
BH378221 AG-ND-119
AZ564976 ZM0234D24
BP519798 BP519798
DN344174 ACAE-aaa2
CR281388 CR281388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AL435288 T3 end of
AL429760 clone BA0
CW393812 fabb001f0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cs51a07.y
hw61c11.b
A0932B01-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B0768E01-
K0827F01-
B0337C08-
B0753H06-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B0797D04-
B0709D06-
                                                                                                                                                7, 2006, 11:55:06; Search time 2362.02 Seconds (without alignments) 3803.154 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CE144436 tigr-gss-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                       1 gctgggcgcggccatga......tgacccaagaaggatgcttt 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CA394392 c
BH885133 b
CN673288 p
CR166270 E
CX391130 p
CD55202 E
CF168303 E
CF162296 E
                                                                                                                                                                                                                                                                                                                                                                                                                                               82156650
                      GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                 41078325 segs, 23393541228 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  summaries
                                                                                                         - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AZ964976
BP519798
DN244174
CR281388
CNS079HE
CNS0757U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DU019646
BH039236
DN671770
BG542199
                                                                                                                                                                                                                                   US-10-782-899-1_COPY_1_192
192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CA394392
BH885133
CN673288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CF166270
CK391130
CD552026
CF165236
CF168303
CF162296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CE144436
                                                                                                                                                                                                                                                                                                                                 IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9b_est1:*
9b_est2:*
9b_ltc:*
9b_est4:*
9b_est4:*
9b_est7:*
9b_gs82:*
9b_gs82:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST:*
                                                                                                                                                     March
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34.2
33.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22222
                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ••
                                                                                                         OM nucleic
                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š.
```

ט ט

υ

υυυ

VERSION KEYWORDS SOURCE ORGANISM

ACCESSION

REFERENCE AUTHORS

JOURNAL

TITLE

PEATURES

ORIGIN

RESULT 2 DU019646/c LOCUS

셤 ò 셤

ò

```
Mus musculus (house mouse)

Mus musculus

Eukaryota; Matazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Musmalia; Eutheria; Euarchontoglires; Glires; Rodentia;

Sciurognathi; Muroidea; Muridae; Murinae; Mus.

El (bases 1 to 749)

S Taegaye, G., Geer, K., Krol, M., Shvartsbeyn, A., Gebregeorgis, E.,

Russell, D., de Jong, P. and Fraser, C.M.

Mouse BAC End Sequences from Library RPCI-24

Unpublished (1999)

Other GSSs: RPCI-24-254N24.TJ

Contact: Shaying Zhao

Department of Eukaryotic Genomics

The Institute for Genomic Research

9712 Medical Center Dr., Rockville, MD 20850, USA

Tel: 301 838 0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LONG/11/10 1275 bp MRNA linear EST 29-MAR-2005
CFW64-F08.x1d-t SHGC-CFW Gasterosteus aculeatus cDNA clone
CFW64-F08 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: szhao@tigr.org
Clones are derived from the mouse BAC library RPCI-24. For BAC
Library availability, please contact Pieter de Jong
library availability, please contact Pieter de Jong
(pdejong@mail.cho.org). Clones may be purchased from BACPAC
Resources (http://www.chori.org/bacpac/orderingframe.htm). BAC end
page: http://www.tigr.org/tdb/bac_ends/mouse/bac_end_intro.html
Plate: 254 row: N column: 24
Seg primer: T7
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cell type="Spleen/Brain"
/clone lib="RPCI-24"
/note="Vector: pTARBAC1; Site 1: BamH1; Site 2: BamH1;
/note="Wector: pTARBAC1; Site 1: BamH1; Ster 2 BamH1;

RPCI-24 Mouse BAC Library produced by Pieter de Jong. The
library was cloned in the pTARBAC1 cloning vector at the
BamH1 sites using MboI partially digested male C57BL/6J
DNA."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              456 decarricregicecrirelecaaareacrecerearearearearecedararerree 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 GGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTAT 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          396 argcarregereresaraccaraarecaeraececrecearrresasecearescretar 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13 GGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCG 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19.0%; Score 36.4; DB 9; Length 749; 54.5%; Pred. No. 2.5; ive 0; Mismatches 61; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST.
Gasterosteus aculeatus (three spined stickleback)
Gasterosteus aculeatus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .749
/organism="Mus musculus"
/mol type="genomic DNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:10090"
/clone="RPCI-24-254N24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:61991827
GI:14816964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /sex="Male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        133 CATTGATGACAACA 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTGATTGCAAAA 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 19.0
Best Local Similarity 54.5
Matches 73; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DN671770.1
  BH039236.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DN671770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                              ORGANISM
                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
DN671770
  VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SM Lycopersicon esculentum (Social Proposition)

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; endicotyledons; asterids; lamiids; Solanales; Solanaceae; Solanum; Lycopersicon.

El (bases 1 to 826)

Mueller, L.A., Buels, R.M., Wang, Y., Tanksley, S.D., Giovannoni, J.J., Van Eck, J. and Stack, S.

BAC end sequencing from three Solanum lycopersicon libraries uppublished (2005)

Other GSSs: 286117

Contact: Lukas Mueller

Tanksley lab, Dept. of Plant Breeding

Cornell University
                                                                                                                                                                                                                                                                                                                                              DU019646
276061 Tomato Mbol BAC Library Lycopersicon esculentum genomic clone SL_Mbol0087H18 5, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSS 17-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTTCGCAGAAACATGCGCTAG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             205 rcrescracreardrerraaaccrirrarrrercresarrrersacrassaaccrics 146
  326 TGGCTTGTCCTTCATTATGTCCTCAGCTCCTTCTGTTTTCAATAGAGTTTGTCAAATAAG 385
                                                          83 TGTGAAAACCCTTATAAAACGCGGGTTTTTCGCAGAAACATGCGCTAGTATCATTGATGAC 142
                                                                                                          386 ragcaagaerrigaraagcaggaggririragcrragrcregcrarcggricagrigacrgr 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 826;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BH039236
RPCI-24-254N24.TV RPCI-24 Mus musculus genomic clone RPCI-24-254N24, genomic survey sequence.
BH039236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  130 TATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCT 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              145 ATTAATTGATGAAATATGAAGTGAAAATAATTATTGTCCTCT 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="genomic DNA"
cultivar="Heinz 1706"
db xref="texon:4081"
/clone="SL_Mbo10087H18"
/clone="EL coll"
/clone lib="Tomato MboI BAC Library"
/note="Vector: pBeloBAC11; Site_1: MboI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lycopersicon esculentum (Solanum lycopersicum)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Lycopersicon esculentum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        251 Emerson Hall, Ithaca, NY 14853, USA
Tel: 607-255-6557
Fax: 607-255-6683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 36.8; DB pred. No. 1.9; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: sgn-feedback@sgn.cornell.edu
Plate: 87 row: H column: 18
Seg primer: T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Class: BAC ends
High quality sequence start: 16
High quality sequence stop: 613.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                              DU019646.1 GI:72421548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19.2%;
                                                                                                                                                                                                                      446 ATTCTGTAGTAA 457
                                                                                                                                                                 143 AACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 62; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
```

ö

ö

RESULT 3 BH039236/c LOCUS

셤

ઠે 용

δ

ACCESSION

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      / Organisms—"East Errosteus aculeatus"
// Organisms—"East Errosteus aculeatus"
// (br. 1 type="mkNA"
// (br. 2 type="mkNA"
// (br. 2 type="mkNA"
// (br. 2 type="mkNA"
// (br. 2 type="gills"
// (br. 3 type="
                                                                                                    Gasterosteidae; Gasterosteidae; Gasterosteidae; Gasterosteidae; Gasterosteidae; Gasterosteus.

Kingsley,D.M., Peichel,C., Balabahdra,S., Grimwood,J., Dickson,M., Schmutz,J. and Myers.R.M.
Schmutz,J. and Myers.R.M.

Lynpublished (2003)

Contact: Grimwood, Jane
Contact: Grimwood, Jane
Stanford Human Genome Center
Stanford Human Genome Center
Stanford University School of Medicine
975 S California Ave, Palo Alto, CA 94304, USA
Tel: 650 320 5917
Fax: 650 320 5801
Email: jane@shgc.stanford.edu
Plate: 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 http://www.openbiosystems.com/cdna_library_construction_fa
q.php#8 The primary library was transformed and amplified
in DH108 (T1 phage resistant) bacteria. Clones available
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BG542199 852 bp mRNA linear EST 03-APR-2001 602571637F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4696041 5', mRNA sequence.
BG542199.1 GI:13534432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1087 GCCAACACTTTCCTGAAAAGTGGAATTTCGGAACCTTTGGGAAAAGGAGGCGAAAAACA 1146
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Actinopterygii, Neopterygii, Teleostei, Buteleostei, Neoteleostei,
Acanthomorpha, Acanthopterygii, Percomorpha, Gasterosteiformes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34 GCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCC 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18.2%; Score 35; DB 8; Length 1275; ilarity 66.7%; Pred. No. 7.9; Conservative 0; Mismatches 25; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    http://www.openbiosystems.com/stickleback"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .1275
/organism="Gasterosteus aculeatus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       High quality sequence start: 3
High quality sequence stop: 841.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Open Biosystems:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1147 GTTTAAAACCCGGGT 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94 TTATAAAACGCGGGT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 50; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                   TITLE
JOURNAL
COMMENT
                                                                                                                                           REPERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT S
BG542199
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

```
| 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1. 12. | 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GSS 10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    446 actarcerchireccaacccacaaracarcesesaccraacieaccasccaarar 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98 AAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCA 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      506 CAACGGCGCCCTATCCTATACTCGGACAAGTCACATTTTTCCATACATGGACTACCCC 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38 AATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTAT 97
                                                                                  Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Euarchontoglires, Primates, Catarrhini,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoldea;
Culicidae; Anophelinae; Anopheles.
1 (bases 1 to 590)
Hong, Y.S., Hogan, J.R., Wang, X., Sarkar, A., Sim, C., Loftus, B.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA Library Preparation: CLONTECH Laboratories, Inc.
CDNA Library Preparation: CLONTECH Laboratories, Inc.
CDNA Library Arrayed by: The I M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM1522 row: j column: 10
Plate: LLCM1522 row: j column: 10
High quality sequence stop: 365.
                                                                                                                                                           Hominidae, Homo.

1 (bases 1 to 852)

NIH-MGC http://mgc.nci.nih.gov/.
National institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: CLONTECH Laboratories, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AG-ND-119J16.TR ND-TAM Anopheles gambiae genomic clone
AG-ND-119J16, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ch 18.0%; Score 34.6; DB 2; Length 852; 1. Similarity 55.4%; Pred. No. 9.7; 67; Conservative 0; Mismatches 54; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anopheles gambiae (African malaria mosquito)
Anopheles gambiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  590 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BH378221
BH378221.1 GI:17324363
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1, .852
                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 67; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BH378221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             158 A 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               À 566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 6
BH378221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
```

```
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polymucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gal electrophoresis. Vector DNA was prepared from a derivative of pwM92 (gi|4732114|gp|AR129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complamentary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coll X110-Gold (Stratagene) cells and selected for ampicillin resistance."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP519798 Hydra magnipapillata cDNA library Hydra magnipapillata cDNA library Hydra magnipapillata cDNA clone hmp_17065, mRNA sequence.
BP519798 GI:34823167
   Unpublished (2000)
Contact: Robert B. Weiss
University of Utah
Rm. 308, Blomedical Polymers Research Bldg., 20 S. 2030 E., SLC, UT
84112, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51 TCGTCTATTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTT 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Merazoa; Cnidaria, Hydrozoa; Hydroida; Anthomedusae; Hydridae; Hydra.
1 (bases 1 to 619)
Hayakawa,S., Hwang,J.S., Nishimiya-Fujisawa,C., Ogura,A., Ikeo,K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /lab host="E. coli strain XL10-Gold, T1-resistant, F-" /clone lib="Mouse 10kb plasmid UGCZM library" /clone Thote="Vector: PMD42nv; Purified genomic DNA from M. musculus G57BL/6J (female) was obtained from the Jackson Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                330 TAGCCTATCTGCAAAACCTCAGGATACAGGGGTTGAAGAAGCCTTATTTCACAACTGTCC 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 270 TAACATATATAAGCCTATGTCTCATTGTGCATAACAAGGAGTATATAAAGG 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        111 TCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 34.2; DB 9; Length 600;
Pred. No. 12;
0; Mismatches 48; Indels C
                                                                                                                                                                                                                                                                                                                                                                       Std Error: 0.00
                                                                                                                                                                                                                                                      Tel: 801 585 5606
Fax: 801 585 7177
Fax: 802 Fax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Mus musculus"
/mol_type="genomic DNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db xref="taxon:10090"
/clone="UUGC2M0234D24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17.8%;
56.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hydra magnipapillata
Hydra magnipapillata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 63; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
BP519798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                              Other_GSSs: AG-ND-119J16.TF
Contact: Brendan J Loftus
Contact: Brendan J Loftus
Contact: Brendan J Loftus
Contact: Brendan J Loftus
Department of Bukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20850, USA
Tel: 301 838 9208
Fax: 301 838 3433
Enail: bjloftus@tigr.org
This clone is from an A. gambiae BAC library (ND-TAM) provided by
F.H. Collins and sequenced by The Institute for Genomic Research
(TIGR). The BAC library was generated from A. gambiae PEST strain
DNA. All DNA was extracted from newly hatched first instar larvae
to minimize the inclusion of DNA from mixed sexes of larvae. The BAC
library was constructed at Texas ARW University BAC Center
University, College Station, Texas 77843-2123, USA using a HindIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      200234D24R Mouse 10kb plasmid UUGC2M library Mus musculus genomic clone UUGC2M0234D24 R, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              459 AAITTITATCITATCTTCTACTTCCACTTCTACCGAAGCATTAGAATTAGATGT 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Buarchontoglires, Glires, Rodentia, Solucopanethi, Muroidea, Muridae, Murinae, Mus.

(Dases 1 to 600)

Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, M., Rose, M., Rose, M., Rose, M., Rose, M., Maright, D., Walse, R. Mouse whole genome scaffolding with paired end reads from 10kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38 AATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTAT 97
Ren,C., Huff,E.R., Carlile,J.L., Black,K., Zhang,H.-B., Gardner,M.J. and Collins,F.H. Construction of a BAC library and generation of BAC end sequence-tagged connectors for genome sequencing of the African malaria mosquito Anopheles gambiae
MAI. Genet. Genomics 268 (6), 720-728 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 34.4; DB 9; Length 590;
Pred. No. 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:7165"
/clone="AG-ND-119116"
/clone= lib="ND-TAM"
/note="Vector: pECBAC1; Site_1: HindIII"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Anopheles gambiae"
/mol_type="genomic DNA"
/strain="PEST"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AZ964976.1 GI:13836203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seq primer: M13 Rev
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     158 AAAGTGCTTGTC 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          579 CÁACCCCTAGCC 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 53.8
Matches 71; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ı, .590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                            Mol. Gene
12655398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AZ964976/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                               PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
```

ò 셤 ઠ 유 ઠે 셤

```
/db host="DH108"
/lab host="DH108"
/clone_lib="Hydra EST UCI 5"
/clone_lib="Wedcr: pSPORTI; Site_1: Not I; Site_2: Sal I;
/clone_lib="Wedcr: pSPORTI; Site_1: Not I primer-adapter
a.ist strand cDNA was primed with a Not I primer-adapter
(5' - pGACTAGTTCTAGATCGCGAGCGCCCC(T)15-3')
b.Double-erranded CDNA was ligated to Sal I adapter,
digested with Not I and cloned into the pSPORT 1-vector
pre-cut with Not I and Sal I. c.The ligation mix was
transformed into DH10B calls. d.The cells were grown in
SCC = 59 yeast, 20g tryptone, 0.5 g NaCl, 10 mW MgSO4, 10
mW MgCl, 0.2% glucose/Liter, (no antibiotic). e.DMSO was
added to a final conc. of 10% as a cryoprotectant.and
frozen f.The titre before freezing was determined as
-2400/100 ul. Assuming a 10% loss upon freezing, the titre
is probably -2100/ 100 ul. g.9 tubes each containing -
2100 clones/100 ul [ = total of = 19,000] are enclosed.
h.The frequency of vectors containing inserts is 96% as
determined by digestion check after picking 24 clones,
miniprep and subsequent digestion with Not I and Sal I.
i.A low level of 32P was used in the cDNA synthesis
procedure. The level measured by holding a Geiger Counter
next to a tube was background."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CR281388 Cryza sativa library (Han B) Oryza sativa cDNA clone y620412p5, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81 ATGAAGTGGGCTTTCAAAGAAGAATATTTTTAGAAAGCAGATGTCAAGAGGTCTACAAAA 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77 AATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATT 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oryza sativa

Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta; Magnoliophyta, Liliopaida, Poales; Poaceae,
Brhartoideae; Oryzae, Iliopaida, Poales; Poaceae,
1 (bases 1 to 878)
Han, E., Feng, C., Huang, Y. C., Ying, K., Li, Y., Guan, J. P., Zhu, J.J.,
Enao, J., Hu, X., Liu, Y. Lu, Y. Q., Yu, Z., Chen, L., Fan, D. L.,
Weng, Q. J., Zhang, L., Lu, Y. Q., Yu, S. L., Liu, X. H., Lu, T. T.,
Zhang, Y. J. Lu, Y., Li, C., Li, T., Zhang, Y., Hu, H., Jia, P. X.,
Zhang, L., Lan, L. F., Chen, W., Wu, S. A. and Xue, Y. B.

Rice cDNA EST clone
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141 ATAAGAAGCAAGTATCCGGATCGAATTCCTGTTGTAGTTGAGAAAGCTCCTCGTTCCACA 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17 ATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGA 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ch 17.8%; Score 34.2; DB 8; Length 651; 1 Similarity 50.9%; Pred. No. 12; 81; Conservative 0; Mismatches 78; Indels
                                  was 100
was 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               137 GATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGA 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201 ATTCAAGATATTGACAAAGAAGTTTCTTGTTCCTCA 239
This trace has been recalled with phred original value before phred recall for SL original value before phred recall for SR is grimer: -40RP from Gibco.
                                                                                                                                                                       /organism="Hydra magnipapillata"
                                                                                                                                                                                              mol_type="mRNA"
|strain="105"
|db_xref="taxon:6085"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CR281388.1 GI:44667954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Han Bin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CR28138Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CR281388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNZ44174
ACAE-aaa24n15.g1 Hydra EST UCI 5 Hydra magnipapillata cDNA 5'
similar to gb|AA045172.1| hypothetical GABA(A) receptor-associated
DNZ44174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. (base; 1 to 651)

Bade, H., Blumberg, B., Steele, R., Wigge, P., Gee, L., Nguyen, O.,
Martinez, D., Kibler, D., Hampson, S., Clifton, S., Pape, D., Marra, M.,
Hiller, L., Martin, J., Wylie, T., Dante, M., Theising, B., Bowers, Y.,
Maguire, L., Kennett, E., Bennett, J., Ronko, I., Taagareishvili, R.,
WashU Hydra EST Project
WashU Hydra EST Project
On mar 1, 2005 this sequence version replaced gi:60406628.
Contact: Hans Bode
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77 AATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATT 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: est@watson.wustl.edu
Library material provided by Hans Bode & Dirk Lindgens, Univ. of
Calif., Irvine Library constructed by Dirk Lindgens, Univ. of
Calif. Irvine Library sequenced by Washington University Genome
Sequencing Center For information on obtaining a clone please
contact: Hans Bode (hrbode@uci.edu)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hydra magnipapillata
Bukaryota; Metazoa; Cnidaria; Hydrozoa; Hydroida; Anthomedusae;
Hydridae; Hydra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30 argaagregectrrcaaagaagaacaracraragaaagcagargrcaagagcaaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17 ATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WashU Hydra EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
Fel: 314 286 1800
Fax: 314 286 1810
                                                                                Contact: Jung Shan Hwang
Center for Information Biology and DNA Data Bank of Japan
National Institute of Genetics
1111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-55-981-6849
Fax: 81-55-981-6849
Exa: 81-55-981-6849
Email: jhwangelab.nig.ac.jp, URL:http://www.cib.nig.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                          1...or. 1

/mol type="mRNA"

/grain=105"

/grain=105"

/clone="hmp_17065"

/tissue_type="whole body"

/clone_lhmp_17065"

/clone_lhmp_17065"

/clone_lib="Hydra magnipapillata cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 619;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         137 GATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGA 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         150 ATTCAAGATATTGACAAAGAAGTTTCTTGTTCCTCA 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 34.2; I
Pred. No. 12;
  Fujisawa, T. and Gojobori, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DN244174.2 GI:68337862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17.8%;
50.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hydra magnipapillata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 17.8
Best Local Similarity 50.9
Matches 81; Conservative
                                                                                                                                                                                                                                                                                                               1. .619
                               Hydra EST pr
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
                         TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 9
DN244174
                                                                                                                                                                                                                                                                               PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
```

셤

유 ò

8

ô

```
Kluyveromyces lactis
Eukaryota; Racomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetacea; Kluyveromyces.
Saccharomycetales; Saccharomycetacea; Kluyveromyces.
E 1 (bases 1 to 845)
S Souciet, J.L., Aigle, M., Artiguenave, F., Blandin, G.,
Bolotin-Fukuhara, M., Bon, E., Brottier, P., Casaregola, S.,
de-Montigny, J., Durrens, P., Lepingle, A., Llorente, B.,
Malpertuy, A., Neuveglise, C., Ozier-Kalogeropoulos, O., Potier, S.,
Saurin, W., Tekaia, F., Toffano-Nioche, C., Wesolowski-Louvel, M.,
Wincker, P. and Welssenbach, J.
Genomic exploration of the hemiascomycetous yeasts: 1. A set of
yeast species for molecular evolution studies
This GSS is part of a random genomic sequencing program of thirteen yeast species: Saccharomyces bayanus var. uvarum, Saccharomyces exiguus, Saccharomyces servazii, Zyposaccharomyces rouxii, Saccharomyces kluyveri, Kluyveromyces thermotolerans, Kluyveromyces lactis var. lactis, Kluyveromyces marxianus var. marxianus, Pichia angusta, Debaryomyces hansenii var. hansenii, Pichia sorbitophila, Candida tropicalis and Yarrowia lipolytica. Genomic inserts of 3 to 5 kb were prepared and both extremities were sequenced. See keywords for description of this sequence and for the sequence of the other extremity of this insert.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lucuto/U 845 bp DNA linear GSS 07-JUL-2001 clone BAOAB033E09 of library BAOAB from strain CLIB 210 of AL429760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cagaatrerererectecticeretatraareaateretreaaerreraagataaaree 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4. .>944
/note="similar to Saccharomyces cerevisiae ORF YMR290c
HAS1 ; helicase associated with Set1p ]
1 putative frameshift(8)"
/evidence=not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35 CATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGGAAAAACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      To (bases 1 to 845)
Bolotin-Fukuhara, M., Toffano-Nioche, C., Artiguenave, F.,
Buchateau-Nguyen, G., Lemaire, M., Marmeisse, R., Montrocher, R.,
Robert, C., Termier, M., Wincker, P. and Wesolowski-Louvel, M.
Genomic exploration of the hemiascomycetous yeasts: 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95 TATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              327 ceratrirecaacitearceaceaarcracerecaciaecaarcaaa 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 11; Length 945;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      47; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 33.8; DE Pred. No. 18; 0; Mismatches
                                                                                                                                                                                                                                                                                                        1. .945
/organism="Pichia angusta"
                                                                                                                                                                                                                                                                                                                                                      /mol_type="genomic DNA"
/strain="CBS 4732"
/db xref="texon:4905"
/clone="BBOA029A02"
/clone lib="BBOA0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kluyveromyces lactis
FEBS Lett. 487 (1), 66-70 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AL429760.1 GI:12212954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17.6%;
56.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kluyveromyces lactis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 845)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11152876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNS0757U/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SM Pichia angusta

Bukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaces; Pichia.

Bucharomycetales; Saccharomycetaces; Pichia.

Bucharomycetales; Saccharomycetaces; Pichia.

Souciet,J.L., Aigle,M., Artiguenave,F., Blandin,G.,
Bolotin-Fukuhara,M., Bon,B., Brottier,P., Casaregola,S.,
de-Montigny,J., Dujon,B., Durrens,P., Lepingle,A., Llorente,B.,
Malpertuy,A., Neuveglise,C., Ozier-Kalogeropoulos,O., Potier,S.,
Saurin,W., Tekaia,F., Toffano-Nioche,C., Wesolowski-Louvel,M.,
Wincker,P. and Weissenbach,J.
Genomic exploration of the hemiascomycetous yeasts: 1. A set of
yeast species for molecular evolution studies

FEBS Lett. 487 (1), 3-12 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CNS079HE 945 bp DNA linear GSS 08-JUL-2001 T3 end of clone BB0AA029A02 of library BB0AA from strain CBS 4732 of Pichia angusta, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGTCATTGTACCCATGAGGGTGACTATTGACGAGAAGTCGGGTTTACTGTTGTATCAG 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62 CAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACA 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       586 GATTTGGGTCTTGGATAAATTCTTAAAATTTGGGACAAGCGCGGTATTTCGCTCAATGG 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           122 IGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCCAAG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (08-882-2000) Genoscope - Centre National de Sequencage,
2 rue Gaston Cremieux, CP 5706, 91057 EVRY cedex, FRANCE. (E-mail
seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Blandin, G., Llorente, B., Malpertuy, A., Wincker, P., Artiguenave, F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 CTGGGCGCGCGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genomic exploration of the hemiascomycetous yeasts: 13. Pichia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
17.8%; Score 34.2; DB 7; Length 878;
Best Local Similarity 49.2%; Pred. No. 13;
Matches 90; Conservative 0; Mismatches 93; Indels
                                                                                                                                                                                                                           1. .878
/organism="Oryza sativa"
/organism="Oryza sativa"
/mol_type="mRNA"
/mol_type="taxon:4530"
/clone="y620dl2p5"
/clone="lb="Oryza sativa library (Han B)"
                                      Chinese Academy of Sciences 500# Cao Bao Road, Shanghai 200233, China Email: bharmencyr.ac.cn
This is rice cdna est clone Web site: http://www.ncgr.ac.cn
                     National Center for Gene Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEBS Lett. 487 (1), 76-81 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL435288.1 GI:12218701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 945)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 945)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pichia angusta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and Dujon, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     706 TAG 708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182 AAG 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11152888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11152876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     angusta
                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CNS079HE/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
```

셤 ઠે 셤 8 셤

ઠ

8

```
/note="Organ: leaf; Vector: pBCSK(-); Site_I: HincII; DNA prepared from purified nuclei was randomly sheared, end-repaired, size fractionated to enrich for the 0.5 to 5 kb fraction, ligated into HincII-digested pBCSK(-) vector and electroporated into B. coli cells. This is a methylation filtered library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACA 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                354 caaggcarrigraagraagracrigcaaraagccrccaaaggccrrggccrrrgcrgaaagc 295
                                                                                                                                                   1. .463
/organism="Sorghum bicolor"
/mol type="genomic DNA"
/cullivar="ATNes"
/db_xref="taxon:4558"
/clone="fabb001f081a17"
/clone="fabb001f081a17"
/clone="fabb001f081a17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hominidae; Homo.

1 (bases 1 to 494)

Wistow,G., Bernstein,S.L., Wyatt,M.K., Farris,R.N., Behal,A.,
Touchman,J.W., Bouffard,G., Smith,D. and Peterson,K.
Expressed sequence tag analysis of human RPE/choroid for the
NEIBank Project: Over 6000 non-redundant transcripts, novel genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CA394392 484 bp mRNA linear EST 06-NOV-20 cs51a07.yl Human Retinal pigment epithelium/choroid cDNA (Un-normalized, unamplified): cs Homo sapiens cDNA clone cs51a07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 10; Length 463;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 TGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Section on Molecular Structure and Function
National Eye Institute
6/331, NIH, Bethesda, MD 20892-2740, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Plate: 51 row: a column: 07
Seg primer: M13RP1 reverse primer (ABI).
Location/Qualifiers
                              Plate: fabboolf081 row: a column: 17
Seg primer: f Forward
Class: methylation filtered
High quality sequence stop: 463.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ch 17.4%; Score 33.4; D
1 Similarity 57.0%; Pred. No. 20;
61; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="RPE/choroid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organisma"Homo sapiens"
/mol_typea"mRNA"
/db_xrefa"taxon:9606"
/clone="cs51a07"
          Email: jbedell@oriongenomics.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and splice variants
Mol. Vis. 8 (4), 205-220 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tel: 301 496 0078
Fax: 301 496 0078
Email: graeme@helix.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CA394392.1 GI:24728898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Wistow G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mol. ViB.
12107410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
CA394392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PUBMED
                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
Submitted (08-SEP-2000) Genoscope - Centre National de Sequencage, 2 rue daston Cremieux, CP 5706, 91057 EVRY cedex, FRANCE. (B-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
This GSS is part of a random genomic sequencing program of thirteen yeast species: Saccharomyces bayanus var. uvarum, Saccharomyces exiguus, Saccharomyces servazzii, Zygosaccharomyces rouxii, Saccharomyces kluyveroi, Kluyveromyces thermotolerans, Kluyveromyces lactis var. lactis, Kluyveromyces thermotolerans, Kluyveromyces lactis var. lactis, Kluyveromyces marxianus var. marxianus, Pichia angusta, Debaryomyces hansenii, var. hansenii, Pichia sorbitophila, Candida tropicalis and Yarrowia lipolytica. Genomic inmerts of 3 to 5 kb were prepared and both extremities were sequenced. See keywords for description of this sequence and for the sequence of the other extremity of this insert.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CW393812 463 bp DNA linear GSS 01-NOV-2004 febb001f081a17f0 Sorghum methylation filtered library (LibID: 104) Sorghum bicolor genomic clone febb001f081a17, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sorghum bicolor (sorghum)
Sorghum bicolor
Sorghum bicolox
Bukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Bukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Sorghum.
I (baese I to 4613)
Bedell, J.A., Budiman, M.A., Numberg, A., Citek, R.W., Robbins, D.,
Jones, J., Flick, E., Rohlfing, T., Fries, J., Bradford, K.,
Smith, M., Holeman, H., Roe, B.A, Wiley, G., Korf, I.P.,
Rabinowicz, P.D., Lakey, N., McCombie, W.R., Jeddeloh, J.A. and
Martienssen, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              165 TAGTTTGAGATGTTTGATCTGGTCTAACGGATCTAATCTGAATACCATATTGGGAGTAGG 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83 TGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGAC 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGA 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /variety="lactis"
/db xref="texon:28985"
/clone="BAOAB033E09"
/clone=lib="BAOAB03E09"
/lone="similar to Saccharomyces cerevisiae ORF YPR010c RPA135; DNA-directed RNA polymerase I, 135 KD subunit |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            105 AGGCACCTCTGTTAGCAAATGAAGGTCTAATGATAGCCATTGGATGGTTTCTACKTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17.5%; Score 33.6; DB 11; Length 845; 54.1%; Pred. No. 20; cive 1; Mismatches 55; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sorghum genome sequencing by methylation filtration PLoS Biol. 3 (1), e13 (2005)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4041 Forest Park Ave, St. Louis, MO 63108, USA Tel: 314 615 6979
Fax: 314 615 5975
                                                                                                                                                                                                                                                                                                                                                                     1. .845
/organism="Kluyveromyces lactis"
/mol_type="genomic DNA"
/strain="CLIB 210"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CW393812.1 GI:55112256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Bedell JA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
nes 66; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence.
CW393812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  143 AA 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15660154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CW393812/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
```

ઠ 셤 ઠે 셤

셤 ઠે

06-NOV-2002

ö

Сарв

ö

IndelB

168

```
/dev stage="Adult"
/lab_host="EMDH10B"
/clone_lbe="Human Retinal pigment epithelium/choroid cDNA
/clone_lbe="Human Retinal pigment epithelium/choroid cDNA
(Un-normalized, unamplified): cs"
(Un-normalized, unamplified): cs"
/note="Organ: Bye; Vector: pcMVSPORT6; Two different donor
eyes (75-80 years old) yielded approximately 600 mg of
dissected RPE/choroid tissue. This in turn yielded 340 ug
of total RNA and 7 ug of mRNA, A directionally cloned cDNA
library in the pcMVSPORT6 vector was constructed at Life
Technologies (Rockville, MD; now part of Invitrogen Corp),
essentially following the protocols of the SuperScript
Plasmid System (Invitrogen Corp.
chttp://www.invitrogen.com/>). The library code
designation was cs. For this library, cDNA inserts were
cloned into the Norl/Mul sites of the vector. BST
analysis was performed on the unamplified library at the
NIH Intramural Sequencing Center (NISC)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSS 05-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TIGICIGATICGICITATITICAATACCITICGGGGAAATAGAIGIGAAAACCCITATAAAA 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          102 CGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E (bases 1 to 728)
S Rabinowicz, P.D., O'Shaughnessy, A.L., Ballja, V., Dedhia, N., Katzenburger, P.D., O'Shaughnessy, A.L., Ballja, V., Dedhia, N., Katzenburger, P., King, L., Miller, B., Muller, S., Nascimento, L., Cartenburger, P., King, L., and Martienssen, R.A., Genomic shotgun sequences from Zea mays (methyl-filtered) Unpublished (2002)
L Gondact: W. Richard McCombie
Lita Annenberg Hazen Genome Sequencing Center
Contact: W. Richard McCombie
Lita Annenberg Hazen Genome Sequencing Center
Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
Tel: 516 367 8884
Fax: 516 367 8887
Fax: 516 367 8887
Fax: 516 367 8887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, PACCAD
clade, Panicoideae, Andropogoneae, Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 rrrrcracrircrcrcrcrracaagcracaagcaaargaarcrgcrcagcagaargaag 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BH885133 1728 bp DNA linear GSS 05-AUG-
hw61c11.bl WGS-ZmaysF (JM107 adapted methyl filtered) Zea mays
genomic clone hw61c11 5', genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 6; Length 494;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 33.4; DB 6; Length 4
Pred. No. 21;
0; Mismatches 66; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .728
/organism="Zea mays"
/mol_type="genomic DNA"
/cultivar="873"
/db xref="taxon:4577"
/clone="hw61c11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Class: shotgun
High quality sequence stop: 728.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCTTGTCCCCTGACCCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127 TrcTTTACTGGTGGACCAA 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BH885133.1 GI:22121030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17.4%;
ilarity 52.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zеа mаув
Zеа mаув
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BH885133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
BH885133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
```

쉽 ઠે g ò

```
/lab_host="JM107 or DH5a" dapted methyl filtered)" clone lib="WGS-ZmaysF (JM107 adapted methyl filtered)" /note="Organ: immature ears; Site_1: Xba I; Site_2: Xba I; The vector was digested with Xbal and one nucleotide was added by fill in in the recessive 3' end. The genomic DNA was nebulized, end repaired, adaptor ligated and size fractionated using sephadex. The resulting fragments were between 0.8 and 3 kb and were cloned into the vector (.x/y reads in M13mp19, .b/g reads in pUC19). The same ligation was transformed in either JM107 or DH5a. "
                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                   110 TTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTC 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     171 ircaradadacardecaraaracaggaraacaaraagaaraarrcarcererre 230
                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                        Score 33.4; DB 9; Length 728; Pred. No. 23; 0; Mismatches 31; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7, 2006, 13:19:34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        170 CCCTGACCCAAGAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231 CTCCTCTTCAAGCAGGAACCTAT 253
                                                                                                                                                                                                                                                                                                                                           ch 17.4%;
1 Similarity 62.7%;
52; Conservative
                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: March
Job time : 2366.02 secs
                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
υυυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 31601, A Sequence 11765, A Sequence 113981, A Sequence 13984, A Sequence 13175, A Sequence 13175, A Sequence 1315, A Sequence 1105, A Sequence 1105, A Sequence 1105, A Sequence 17055, A Sequence 27, Appli Sequence 5, Appli Sequence 15769, A Sequence 15769, A Sequence 15769, A Sequence 18769, A Sequence 18769
                                                                                                                                       March 7, 2006, 11:56:56; Search time 134.579 Seconds (without alignments) 2535.988 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                         1 gctgggcgcggcgtcatga......tgacccaagaaggatgcttt 192
GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2606114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /cgn2_6/ptodata/1/ina/1_COMB.seq:*
/cgn2_6/ptodata/1/ina/6_COMB.seq:*
/cgn2_6/ptodata/1/ina/6_COMB.seq:*
/cgn2_6/ptodata/1/ina/6_COMB.seq:*
/cgn2_6/ptodata/1/ina/H_COMB.seq:*
/cgn2_6/ptodata/1/ina/H_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/RE_COMB.seq:*
/cgn2_6/ptodata/1/ina/RE_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-513-999C-31601

US-09-949-016-11765

US-09-454-466-1

US-09-499-016-1398

US-09-949-016-13964

US-09-949-016-13175

US-09-949-016-13175

US-09-710-279-603

US-09-710-279-603

US-09-710-279-3485

US-09-949-016-117095

US-09-949-016-17095

US-09-949-016-17095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-15769
US-09-593-828-11
US-09-949-016-44696
US-09-621-976-2813
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                             1303057 seqs, 888780828 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                             nucleic search, using sw model
                                                                                                                                                                                                                             US-10-782-899-1_COPY_1_192
192
                                                                                                                                                                                                                                                                                                                                      IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patents NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      768
601
2385
3077
3092
3126
3253
4623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22404
22404
26167
46745
601
58768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1569
3204
10303
99797
601
36855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Issued
                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Perfect score:
                                                                                             OM nucleic
                                                                                                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                          Run on:
```

```
Sequence 16391, A Sequence 16631, A Sequence 16402, A Sequence 13402, A Sequence 3, Appl Sequence 1, Appl Sequence 1, Appl Sequence 1, Appl Sequence 1, Appl Sequence 11808, A Sequence 12286, A Sequence 12286, A Sequence 16006, A Sequence 12369, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 1
US-09-513-999C-31601
Sequence 31601, Application US/09513999C
Fatent No. 6783961
GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Duclert, A.
TILLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
FATLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
FILE REFERENCE: 59.052.REG
CURRENT PILIGNG DATE: 2000-02-24
FRIOR APPLICATION NUMBER: US 60/122,487
FRIOR FILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: PALCH.PM
SEQ ID NOS: 36681
SEQ ID NO 31601
LENGTH: 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99 TCAIGIGGAITGITITCIGICITIAGGIAITAAAAIGCIGIAITCAAIAATTIKGGGGAC 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78 ATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTG 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18 TGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAA 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 17.0%; Score 32.6; DB 3; Length 278; Best Local Similarity 51.0%; Pred. No. 0.22; Matches 77; Conservative 0; Mismatches 74; Indels
US-09-949-016-16391

US-09-949-016-16631

US-09-949-016-16631

US-09-949-016-16632

US-09-949-016-13019

US-09-949-016-13019

US-09-556-002-36

3 US-09-557-884-1

3 US-09-543-990A-1

3 US-09-549-016-11808

US-09-949-016-11308

US-09-949-016-12308

US-09-949-016-12308

US-09-949-016-12308

US-09-949-016-17302

US-09-949-016-17302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          138 ATGACAACATGGACTAAGCAAAAGTGCTTGT 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
US-09-949-016-11765/c
; Sequence 11765, Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: 152 OTHER INFORMATION: k=g or t
09-513-999C-31601
  15.1 36791 3
15.1 42479 3
15.1 42479 3
15.1 42479 3
15.1 910940 3
15.1 1830121
15.0 636591 3
15.0 636591 3
14.9 263693 3
14.9 263693 3
14.8 50381 3
14.8 50381 3
14.8 50381 3
14.8 50381 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194537
201529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM: Homo sapiens
```

```
US-09-949-016-13964/C

Sequence 13964, Application US/09949016

Patent No. 6812339

HISTORIAN INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF.

FILE REFERENCE: CLO01307

CURRENT FILING DATE: 2000-04-14

PRIOR PLILING DATE: 2000-10-20

PRIOR PELING DATE: 2000-10-03

PRIOR PLILING DATE: 2000-10-03

PRIOR PLILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: PRESENCE FOR Windows Version 4.0

SEG ID NO 13964
                                                                                                                                                                                                                                                                                                                                                           Sequence 10. Application US/09454466

Sequence 10. 6858425

Sequence 10. 6858425

SEGNERAL INFORMATION:
APPLICANT: Heus, Joris Jan
APPLICANT: Pharming Intellectual Property B.V.
TITLE OF INVENTION: CASEIN GENE SEQUENCES
FILE REFERENCE: 016994-013720US
CURRENT APPLICATION WUMBER: US/09/454,466

CURRENT APPLICATION NUMBER: 00/110,859
EARLIER APPLICATION NUMBER: 60/110,859
EARLIER PILING DATE: 1998-12-04
EARLIER PILING DATE: 1998-12-04
EARLIER PILING DATE: 1998-12-04
EARLIER PILING DATE: 1999-03-02
NUMBER: OF SEQ ID NOS: 5
SOFTWARE: PatentIN Ver. 2.1

SEQ ID NO 1

ERROR PARTICAL OF THE 
17958 CGAGCAGAGAGATGAAAAGGCAGAGAGAATGTGGAGGTGTCAGCAGAAGACTGGGGCAGG 17899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71 CGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGT 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 16.2%; Score 31.2; DB 3; Best Local Similarity 60.7%; Pred. No. 4.1; Matches 51; Conservative 0; Mismatches 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17898 AACACCCATGAGAACAGGGACTCA 17875
                                                                                                                                                                                         19111 AACACCCATGAGAACAGGACTCA 19088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; LOCATION: (1)...(46745)
; OTHER INFORMATION: n = A,T,C or
US-09-949-016-13964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                RESULT 4
US-09-454-466-1/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-454-466-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                       ò
                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
   GENERAL INFORMATION:
APPLICANT: VENTER,
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR PLILNG DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SEQ ID NO 11765
LENGTH: 22404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
APPLICANT: WENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TILE REFERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-104-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,756
PRIOR PILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19171 ČGAĞCAĞAĞAĞAĞATĞAZAAĞĞÇAĞAĞAĞATGTĞGAĞĞTĞTCAĞÇAĞACAĞCTĞĞĞĞCAĞĞ 19112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           71 CGGGGAAATAGATGTGAAAACCCTTATAAAACGGGGGTTTTCGCAGAAACATGCGCTAGT 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71 CGGGGAAATAGATGGGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGT 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 31.2; DB 3; Length 2 Pred. No. 3.8; 0; Mismatches 33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
16.2%; Score 31.2; DB 3;
Best Local Similarity 60.7%; Pred. No. 3.8;
Matches 51; Conservative 0; Mismatches 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19111 AACACCCATGAGAACAGGGACTCA 19088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         131 ATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-15398/c
; Sequence 15398, Application US/09949016
; Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; LOCATION: (1)...(22404)
; OTHER INFORMATION: n = A,T,C or G
uS-09-949-016-11765

    LOCATION: (1) ... (22404)
    CTHER INFORMATION: n = A,T,C or G
US-09-949-016-15398

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 60.7%;
Matches 51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 15398
LENGTH: 22404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
43027 TACTTTCATTAACTTTAGGAAGGCTGAAGGGGAAAAATCAATAAAGCAGCTCTCTTGACT 42968
                                                                                                                                                                                                                                                                                               56 IATTITCAATACCTICGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCA 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49 ATTCGFCTATTTTCAATACCTTCGGGGAAATAGATGGAAAAACCCCTTATAAAACGCGGGT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87 arangaarangaacaaaaraangagganggarangicicicagggarahaaaggangi 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: KIMBELY, WILLIAM JOHN
TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
FILE REFERENCE: PU3480U2
CURRENT APPLICATION NUMBER: US/09/710,279
CURRENT FILING DATE: 2000-11-09
PRIOR PPLICATION NUMBER: 60/164,258
PRIOR PILING DATE: 1999-11-09
NUMBER OF SEQ ID NOS: 4472
SOFTWARE: Batentin Ver. 2.1
LENGTH: 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3485, Application US/09710279
; Patent No. 6703492
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Description of Artificial Sequence: synthetic OTHER INFORMATION: nucleic acid sequence
                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                          Length 58768;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 3; Length 1569;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41; Indels
                                                                                                                                                                                                                                        39; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109 TTTCGCAGAAACATGCGCTAGTATCATTGATGACAA 144
                                                                                                                                                                                                                                                                                                                                                                                                                                     42967 CAAAGATGAGCTGAAATAATACATGAATAAATG 42935
                                                                                                                                                                                    Score 30.6; DB 3;
Pred. No. 9.1;
                                                                                                                                                                                                                                                                                                                                                                                                  116 GAAACATGCGCTAGTATCATTGATGACAACATG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
15.8%; Score 30.4; DE
Best Local Similarity 57.3%; Pred. No. 2.5;
Matches 55; Conservative 0; Mismatches
                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION UNMER: US/09/710,279
CURRENT FILING DATE: 2000-11-09
PRIOR APPLICATION NUMBER: 60/164,258
PRIOR FILING DATE: 1999-11-09
NUMBER OF SEQ ID NOS: 4472
SOFTWARE: Retentin Ver: 2.1
SEQ ID NO 3485
LENGTH: 3204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 603, Application US/09710279; Patent No. 6703492; GENERAL INFORMATION:
                                                    | NAME/KEY: misc_feature
| LOCATION: (1)...(58768)
| OTHER INFORMATION: n = A,T,C or G
US-09-949-016-13175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                       Query Match
Best Local Similarity 58.1%;
Matches 54; Conservative
        ORGANISM: Human
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
US-09-710-279-3485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-710-279-603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-710-279-603
                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                    Sequence 48509, Application US/09949016

Fatent No. 6812339

GENERAL INCORMATION:
FAPLICART: VENTER, J. Craig et al.
FILLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT APPLICATION NUMBER: 60/241,755
FRIOR PILING DATE: 2000-10-20
FRIOR FILLING DATE: 2000-10-03
FRIOR FILLING DATE: 2000-10-03
FRIOR FILLING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOUTHANDER OF SEQ ID NOS: 207012
SOUTHARD: PESESEQ FOR Windows Version 4.0
LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-13175/c

1 Sequence 13175, Application US/09949016

1 Sequence 13175, Application US/09949016

2 Patent No. 6812339

3 GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

1 TILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

1 TILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

1 TILE OF INVENTION: WINBER: US/09/949,016

1 CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,756

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PLING DATE: 2000-10-03

PRIOR PLING DATE: 2000-10-03

PRIOR PLING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

3 SOFTHARE: PSECSEQ for Windows Version 4.0

5 SEQ ID NO 13175

LENGTH: 58768
                                                                                                                                                         40974 CTGCTTCCACTGTCATGACCTTAGGTGGCATAAAAGTCCTTACCTTACCCTAAG 40915
                                                         ö
                                                                                                        46 CTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCG 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    56 TATTITICAATACCTICGGGGAAATAGAIGTGAAAAACCCCTTATAAAACGCGGGTTTTCGCA 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        149 TACTITCAITAACTITTAGGAAGCTGAAGGGGGAAAAAATCAATAAAGCAGCTCTCTTGACT 208
                                                                                                                                                                                                                                           40914 GATGGGCCAATTCTCTTTTAGTATCTTTCGAACAGCTGTGCTTAAAGTTAAAG 40859
                                                                                                                                                                                                             106 GGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
  Length 46745;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 15.9%; Score 30.6; DB 3; Length 601; Best Local Similarity 58.1%; Pred. No. 1.5; Matches 54; Conservative 0; Mismatches 39; Indels
                                                      Indels
  Score 31.2; DB 3;
Pred. No. 5.1;
0; Mismatches 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            116 GAAACATGCGCTAGTATCATTGATGACAACATG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209 caaagargagcrgaaaraaracargaaraaarg 241
Query Match
Best Local Similarity 54.3%;
Matches 63; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-48509
                                                                                                                                                                                                                                                                                                                                                                         -09-949-016-48509
                                                                                                        ઠે
                                                                                                                                                         В
                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

```
ORGANISM: Human
US-09-949-016-187277
                                                                                                                                                                                                             ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            48
                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 15255, Application US/09949016

Patent No. 681239
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8088 CGAAGAAAGCAGCAAGGACATTGTTGAAGAAGTCATGCAGCAGCAAAAGAAATTGTCGC 8029
                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112 CGCAGAAACATGCGCTAGTATCATTGATGACATGGACTAAGCAAAAGTGCTTGTCCC 171
                                                                                                                                                                                                                                   49 ATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGT 108
                                                                                                                                                                                                                                                                             542 ATATGAATATGAACAAATAATGAGCGATCCATATCTCTCACGCTTATAAAACTAATGT 601
                                                                                                                                                                                            Gaps
                                                ; OTHER INFORMATION: Description of Artificial Sequence: synthetic; ; OTHER INFORMATION: nucleic acid sequence
US-09-710-279-3485
                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 60.5%; Pred. No. 8.6;
Matches 49; Conservative 0; Mismatches 32; Indels 0;
                                                                                                                                           Query Match
Best Local Similarity 57.3%; Pred. No. 3.4;
Matches 55; Conservative 0; Mismatches 41; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Holland, Ross
APPLICANT: O'Toole, Paul W.
APPLICANT: Co'Toole, Paul W.
APPLICANT: Colbear, Timothy
TITLE OF INVENTION: them and methods for using them.
FILE REPERENCE: 11000.1049634,238
CURRENT APPLICATION NUMBER: US/09/634,238
CURRENT FILING DATE: 2000-08-08
NUMBER OF SEQ ID NOS: 4422
                                                                                                                                                                                                                                                                                                                                                             602 haacecesarararrearastricarrarisaaa 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8028 CGCTCGAAATGCCGCTTT 8008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 410, Application US/09634238
Patent No. 6544772
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172 CTGACCCAAGAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glenn, Matthew
Havukkala, Ilkka J.
Bloksberg, Leonard, N.
Lubbers, Mark W.
Dekker, James
Christensson, Anna C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA ORGANISM: Lactobacillus rhamnosus
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-949-016-15255/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 410
LENGTH: 10303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-634-238-410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
```

```
US-09-949-016-187277/c

US-09-949-016-187277/c

Sequence 187277, Application US/09949016

Retent No. 6812339

GENERAL INFORMATION:

PAPPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WIMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 2000-10-00

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 187277

LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32501 reraccarcaartecrecarrirgargaceracracrarraaaaccarcaccaccaccacrarracae 32442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 AACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAA 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96 ATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAG 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40 ICTEGICEGALTCGICTATTTTCAATACCTTCGGGGAAATAGATGGAAAACCCTTATAA 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              108 ATATGACCCAGTAGTCTTTGAAAGCTCCTTCCCTATCTTTATGACAAGATGTTCCAAG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                Length 99797;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15.4%; Score 29.6; DE
59.5%; Pred. No. 3.3;
cive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                Score 29.8; Di
Pred. No. 21;
0; Mismatches
                                                                                                                           NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 15255
LENGTH: 99797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     156 CAAAAGTGCTTGTCCCCTGACCCA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTATTIGTATATTTCCTGCCCCA 25
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                             32381 AATTCTTGCCCTCTGAC 32365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160 AGTGCTTGTCCCCTGAC 176
                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 51.1%;
Matches 70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 59.57
Described 50; Conservative
                                                                                                                                                                                                                                                                                                          NAME/KEY: misc_feature
```

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
Sequence 17095, Application US/09949016

Fatent No. 6812339
GENERAL INFORMATION:
FATENCE INFORMATION:
FAPILICANT: VERTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT PILING DATE: 2000-04-14
FRIOR FILING DATE: 2000-10-20
FRIOR FILING DATE: 2000-10-03
FRIOR FILING DATE: 2000-10-03
FRIOR FILING DATE: 2000-0-03
FRIOR FILING DATE: 2000-0-04
FRIOR FILING DATE: 2000-0-08
FRIOR FILING DATE: 2000-0-08
FRIOR FILING DATE: 2000-0-09
FRIOR FILING DATE: 2000-0-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
US-09-114-000C-3331
US-09-114-000C-3331
Sequence 3311, Application US/09134000C
Patent No. 6617156
GENERAL INCORMATION:
APPLICANT Lynn Doucette-Stamm et al
APPLICANT LYNN NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
TITLE OF INVENTION: BNTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 032796-032
CURRENT APPLICANTON NUMBER: US/09/134,000C
CURRENT FILING DATE: 1998-08-13
PRIOR FILING DATE: 1997-08-15
NUMBER OF SEQ ID NOS: 6812
SEQ ID NOS: 6812
LENGTH: 768
LENGTH: 768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29826 ATATGACCCCAGTAGTCTTTGAAAGCTCCTTCCCTATCTTTTATGACAAGATGTTCCAAG 29767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     327 TTATGCGACGCTTGGCGCAAAACAAGTGTCAATAACATTGATTACTTTAAAATGAACT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97 TAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGC 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 15.4%; Score 29.6; DB 3; Length 36855; Best Local Similarity 59.5%; Pred. No. 17; Matches 50; Conservative 0; Mismatches 34; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 15.3%; Score 29.4; DB 3; Length 768; Best Local Similarity 63.4%; Pred. No. 4.2; Matches 45; Conservative 0; Mismatches 26; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29766 CTTATTTGTATATTTCCTGCCCCA 29743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   156 CAAAAGTGCTTGTCCCCTGACCCA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Enterococcus faecalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     157 AAAAGTGCTTG 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    387 AAAAGAGCTTG 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-949-016-17095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-134-000C-3331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEO ID NO 17095
LENGTH: 36855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

RESULT 15 US-09-949-016-142351/c

```
GENERAL INFORMATION:
APPLICANT: VENTER, O. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REPRENENCE: CLO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR PILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-00-09-08
PRIOR PILING DATE: 2000-09-09
PRIOR FILING DATE: 2000-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55 CTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGC 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               265 CTAGTGTTAAAAAACTCACACAAAAAGAGCTGAGGAAGGCTATAAAAAGAGGTTCTCAC 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       115 AGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAA 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         205 ACTTGGATGCCTAATAACAAAACTATCACAAAAGACTCTGCAAAA 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15.2%; Score 29.2; DB 3; 54.7%; Pred. No. 4.5; ive 0; Mismatches 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: March 7, 2006, 14:11:45 Job time: 139.579 secs
Sequence 142351, Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 54.7
Matches 58; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-142351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 142351
LENGTH: 601
```

itiis Fage Blank (uspto)

```
GAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                  US-09-816-391A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 1
                                                                                                                                                              υυυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Appli
Sequence 1, Appli
Sequence 60228, Asparence 60228, Sequence 167810,
Sequence 167810,
Sequence 6585, Ap
Sequence 6585, Ap
Sequence 6585, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2058, Ap
Sequence 71957, A
Sequence 691107,
Sequence 691108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 8869, Ap
Sequence 65588, A
Sequence 170277,
Sequence 170278,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 12097, A
Sequence 49312, A
Sequence 49313, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 5754, Ap
Sequence 5041, Ap
                                                                          March 7, 2006, 12:14:00 ; Search time 526.953 Seconds (without alignments) 3013.020 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                            gctggggcgcggccatga......tgacccaagaaggatgcttt 192
                                                                                                                                                                                                                                                                                                                                                                         Published Applications NA Main:*

1: /cgn2_6/ptodata/1/pubpia/USO3_PUBCOMB.seq:*

2: /cgn2_6/ptodata/1/pubpia/USO3_PUBCOMB.seq:*

3: /cgn2_6/ptodata/1/pubpia/USO3B_PUBCOMB.seq:*

4: /cgn2_6/ptodata/1/pubpia/USO3B_PUBCOMB.seq:*

5: /cgn2_6/ptodata/1/pubpia/USO3B_PUBCOMB.seq:*

6: /cgn2_6/ptodata/1/pubpia/USO3B_PUBCOMB.seq:*

7: /cgn2_6/ptodata/1/pubpia/USO3B_PUBCOMB.seq:*

8: /cgn2_6/ptodata/1/pubpia/USO3D_PUBCOMB.seq:*

9: /cgn2_6/ptodata/1/pubpia/USO3D_PUBCOMB.seq:*

9: /cgn2_6/ptodata/1/pubpia/USO3D_PUBCOMB.seq:*

10: /cgn2_6/ptodata/1/pubpia/USO3D_PUBCOMB.seq:*
GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 US-09-816-191A-1
7 US-10-782-899-1
7 US-10-470-565-1
5 US-10-470-565-1
5 US-10-027-612-167810
5 US-10-027-612-167810
5 US-10-027-612-6585
5 US-10-027-612-6585
5 US-10-027-612-6585
7 US-11-097-143-30178
7 US-10-398-221-8
7 US-10-398-221-8
7 US-10-398-21-8
7 US-10-398-211-8
7 US-10-398-211-8
7 US-10-398-211-8
7 US-10-398-211-8
7 US-10-398-211-8
7 US-10-398-211-8
7 US-10-925-665A-691107
US-09-925-665A-691108
US-09-925-665A-49312
US-09-925-665A-49313
US-09-925-665A-49313
US-09-925-665A-170277
US-09-925-665A-170277
US-09-925-665A-170278
US-10-021-323-5754
                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                             9793542 segs, 4134689005 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                  nucleic search, using sw model
                                                                                                                            US-10-782-899-1_COPY_1_192
192
                                                                                                                                                                                   IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                               DB seq length: 0
DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 824 6
484 5
484 6
2717 1
495269 7
3011208
1437 4
1437 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
1485
1485
18272
1771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30.8
30.6
30.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
                                                  nucleic
                                                                                                                                                            Sequence:
                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                              Database
                                                                                                                                                                                                                                                                                 Minimum |
Maximum |
                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š.
                                                   ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             υu
```

```
Sequence 1, Application US/09816391A
; Sequence 1. Application US/09816391A
; Patent No. US20020054865A1
; GENERAL INFORMATION:
; APPLICANT: FUJIMORI, Minoru
; APPLICANT: TANIGUCHI, Shunichiro
; APPLICANT: TANIGUCHI, Shunichiro
; APPLICANT: ARANA, Kazuyuki
; APPLICANT: WAXAWURA, TOSHiyuki
; APPLICANT: NAKAWURA, TOSHiyuki
; APPLICANT: NAKAWURA, TOSHiyuki
; TITLE OF INVENTION: Anaerobic bacterium as a drug for cancer gene therapy
; FILE REPRENCE: 2001-WMC/01736
; CURRENT APPLICATION NUMBER: US/09/816,391A
; CURRENT PILING DATE: 2001-03-26
; PRIOR FILING DATE: 2000-09-21
                                                                                                                                                                                                                                                                                                                                                          Sequence 16206, A Sequence 250, App Sequence 250, App Sequence 185956, Sequence 185956, Sequence 684507, Sequence 25530, A Sequence 25530, A Sequence 1207, App Seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 TCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAAC 120
                                                                                                                                                                                                                      10536, A
10536, A
149916,
51874, A
16206, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 ATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTGGGCGGCGGCCGTGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGGGCGCGCGGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gapa
                                             Sequence 3 Sequence 5 Sequence 5 Sequence 5 Sequence 5 Sequence 6 Sequence 7 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
US-09-925-065A-308556
US-09-925-065A-308557
US-09-925-065A-908747
US-09-925-065A-908740
US-09-925-065A-908740
US-10-027-632-10536
US-10-027-632-10536
US-10-027-632-10536
US-10-037-930-51874
US-09-925-065A-149916
US-10-087-192-250
US-10-087-192-185956
US-10-027-632-185956
US-10-027-632-185956
US-09-925-065A-684508
US-10-037-632-185956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
100.0%; Score 192; DB 3;
Best Local Similarity 100.0%; Pred. No. 4.7e-54;
Matches 192; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA ORGANISM: Bifidobacterium longum
                                                                           601
670
670
1099
1099
528
515
515
515
639
11296
11332
7017
25519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; NAME/KEY: CDS
; LOCATION: (193)..(471)
US-09-816-391A-1
```

```
Sequence 60228, Application US/10425115

Publication No. US20040214272A1

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(5222)B
CURRENT APPLICANTON INDER: US/10/425,115
CURRENT APPLICANTON INDER: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 60228
                                                                                                                                                                                                                                                                                                                                                                                                    2242052 ACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCC 2241993
                                                                                                                                                                                                           2242172 GCTGGGCGCGGGGCGTGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT 2242113
                                                                                                                                                                                                                                                                                                                 2242112 TCATACCCCCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAA 2242053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 187 cricaaarcracicacaaagaraacraaarrrrricacccaaaacaaaracraraargc 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76 AAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCAT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16 CATGAAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGG 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          127 AATGACAGCAATTAATACATTTGAAATGCCTATTTACATAATACAAAGCACTGCTAGACT 68
                                                                                                                                                                                                                                                                                                                                                                     119 ACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCC
                                                                                                                                                                                                                                                                61 TC--AATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gape
                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 167810, Application US/10027632
Publication No. US2020198371A1
GENERAL INFORMATION:
APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
TITLE OF INVENTION: Polymorphisms in the Human Genome
FILE REFERENCE: 108827.128
CURRENT APPLICATION NUMBER: US/10/027,632
                                                    Length 2256646;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 18.0%; Score 34.6; DB 8; Length 425; Best Local Similarity 51.6%; Pred. No. 0.6; Matches 79; Conservative 0; Mismatches 74; Indel8
                                              Query Match
91.2%; Score 175.2; DB 7; Length
Best Local Similarity 97.4%; Pred. No. 1.2e-46;
Matches 189; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136 TGATGACAACATGGACTAAGCAAAAGTGCTTGT 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67 TACTGCCAACAATAGCTAAACAGAAGAGGTGGT 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: Clone ID: MRT4577_15492C.1
US-10-425-115-60228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179 AAGAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
US-10-027-632-167810/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-10-425-115-60228/c
US-10-470-565-1
                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                  FURLICANT: PULLIANCH MINORU
APPLICANT: TANIGUCHI, SHUNICHIRO
APPLICANT: TANIGUCHI, SHUNICHIRO
APPLICANT: TANIGUCHI, SHUNICHIRO
APPLICANT: YAZAWA, KAZUYUKI
APPLICANT: YAZAWA, KAZUYUKI
APPLICANT: KANO, YASUNOBU
APPLICANT: RANO, YASUNOBU
APPLICANT: RANO, WASHIRA, TOSHIYUKI
APPLICANT: MARAMIRA, TOSHIYUKI
APPLICANT: MARAMIRA, TOSHIYUKI
APPLICANT: MARAMIRA, 10SHIYUKI
CURRENT APPLICATION NUMBER: 09/816,391
CURRENT APPLICATION NUMBER: 09/816,391
FRIOR APPLICATION NUMBER: 09/816,391
PRIOR APPLICATION NUMBER: 09/816,391
PRIOR APPLICATION NUMBER: J200-0287688
PRIOR FILING DATE: 2000-09-21
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PATENTIN VOT: 3.2
SEQ ID NO 1
LENGTH: 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAAACGCGGGTTTTCGCAGAAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 TCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 ATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCCAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GCTGGGCGCGGCGTGATGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GCTGGGCGCGCGCCATGAAGTGGCTTGACAAGCATAATCTTGTCTGTTTCGTCTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a Bifidobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0%; Pred. No. 4.7e-54;
Matches 192; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-470-565-1/c
Sequence 1, Application US/10470565
Publication No. US20040126870A1
GENERAL INFORMATION:
TITLE OF INVENTION: UCC2705 - the genome of a F
TITLE REFERENCE: 80290/WO
CURRENT APPLICATION NUMBER: US/10/470,565
CURRENT FILING DATE: 2003-07-29
PRIOR APPLICATION NUMBER: EP 01102050.0
PRIOR FILING DATE: 2001-01-30
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin version 3.1
                                                                                                                                    Sequence 1, Application US/10782899
Publication No. US20050025745A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Bifidobacterium longum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Bifidobacterium longum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAGGATGCTTT 192
        181 GAAGGATGCTTT 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; NAME/KEY: CDS
; LOCATION: (193)..(471)
US-10-782-899-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 1
LENGTH: 2256646
                                                                               RESULT 2
US-10-782-899-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA
        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

```
76 AAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCAT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      130 AGAATATICTTTTCACACCTACTGTTAATCCCTCCGGGTRAATAGGCATGACAATAATA 189
                                                           384 ATATABATGAGAAAACCAABAGAGTAAGCAATATTTABAAGAAGGTTGAACATGGATCTA 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36 ATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTT 95
                                                                                                                                                                                                                                                                                                                                                        Sequence 6585, Application US/10027632
Publication No. US20020199371A1
GENERAL INFORMATION:
FILE OF INVENTION:
FILE OF INVENTION:
FOURERIT APPLICATION NUMBER: US/10/027,632
GURRENT APPLICATION NUMBER: US 60/18,006
FRIOR FILING DATE: 2000-07-12
FRIOR APPLICATION NUMBER: US 60/198,676
FRIOR PILING DATE: 2000-07-12
FRIOR APPLICATION NUMBER: US 60/193,483
FRIOR APPLICATION NUMBER: US 60/195,218
FRIOR APPLICATION NUMBER: US 60/185,218
FRIOR APPLICATION NUMBER: US 60/167,363
FRIOR APPLICATION NUMBER: US 60/166,002
FRIOR APPLICATION NUMBER: US 60/167,002
FRIOR APPLICATION NUMBER: US 60/166,002
FRIOR FILING DATE: 1999-108-08-09
FRIOR FILING DATE: 1999-108-08-09
FRIOR FILING DATE: 1999-108-08-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-027-632-6585

Sequence 6585, Application US/10027632

Sequence 6585, Application US/10027632

Publication No. US20030204075A9

GENERAL INFORMATION:
APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
TITLE OF INVENTION: Polymorphisms in the Human Genome
TITLE OF INVENTION: Polymorphisms in the Human Genome
TITLE OF INVENTION: 108827.129

CURRENT PAPLICATION NUMBER: US/10/027,632

CURRENT FILING DATE: 2002-04-30

PRIOR APPLICATION NUMBER: US 60/218,066

PRIOR APPLICATION NUMBER: US 60/193,483

PRIOR PAPLICATION NUMBER: US 60/193,483

PRIOR PAPLICATION NUMBER: US 60/193,483

PRIOR APPLICATION NUMBER: US 60/193,218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch 16.9%; Score 32.4; DB 5; Length 484; 1 Similarity 60.7%; Pred. No. 3.6; 51; Conservative 1; Mismatches 32; Indels
                                                                                                                                  136 TGATGACAACATGGACTAAGCAAAAGTGCTTGTC 169
                                                                                                                                                                                   324 TGATGAGAACAAGTCATAAAGCAAGGGTTGTAATC 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 325720
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96 ATAAAACGCGGGTTTTCGCAGAAA 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                190 ATGAAATACTTTTTTTCTGAGAA 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 51; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-027-632-6585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 6585
                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                  8
                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76 AAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTTCGCAGAAACATGCGCTAGTATCAT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     384 ATATAAATGAGAAAACCAAAAGAGTAAGCAATATTTAAAAGAAGGTTGAACATGGATCTA 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 167810, Application US/10027632

Publication No. US20030204075A9

GENERAL INFORMATION:

APPLICANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single Nucleotide

FILE OF INVENTION: Polymorphisms in the Human Genome

FILE OF INVENTION: POLYmorphisms in the Human Genome

FILE OF INVENTION: 10827.129

CURRENT APPLICATION NUMBER: US 60/218,006

PRIOR FILING DATE: 2000-00-120

PRIOR FILING DATE: 2000-00-120

PRIOR FILING DATE: 2000-04-20

PRIOR FILING DATE: 2000-03-29

PRIOR FILING DATE: 2000-03-29

PRIOR FILING DATE: 2000-03-29

PRIOR FILING DATE: 1999-11-23

PRIOR FILING DATE: 1999-11-23

PRIOR FILING DATE: 1999-09-28

PRIOR FILING DATE: 1999-09-08

PRIOR FILING DATE: 1999-08-09

PRIOR FILING DATE: 1999-08-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17.3%; Score 33.2; DB 6; Length 824; 59.6%; Pred. No. 2.5; tive 0; Mismatches 38; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 17.3%; Score 33.2; DB 5; Length 824; Best Local Similarity 59.6%; Pred. No. 2.5; Matches 56; Conservative 0; Mismatches 38; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136 TGATGACAACATGGACTAAGCAAAAGTGCTTGTC 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          324 rgargagaacaagtcaraagcaagggrugraarc 291
                                                 FRICK AFLING DATE: 2000-07-12
PRIOR PILING DATE: 2000-07-12
PRIOR PLING DATE: 2000-04-20
PRIOR PLING DATE: 2000-04-20
PRIOR PLING DATE: 2000-04-20
PRIOR PILING DATE: 2000-03-29
PRIOR PILING DATE: 2000-03-29
PRIOR PILING DATE: 2000-02-24
PRIOR PILING DATE: 1999-10-23
PRIOR PILING DATE: 1999-10-23
PRIOR PILING DATE: 1999-09-28
PRIOR PILING DATE: 1999-09-8
PRIOR PILING DATE: 1999-08-09
NUMBER OF SEQ ID NOS: 325720
SOFTWARE: FASTSEQ for Windows Version 4.0
SERIGHTH: 824
                            PRIOR APPLICATION NUMBER: US 60/218,006
PRIOR FILING DATE: 2000-07-12
2002-04-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 17.39
Best Local Similarity 59.69
Matches 56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-027-632-167810/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Human
US-10-027-632-167810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-027-632-167810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
```

0; Gaps

```
TYPE: DNA
ORGANISM: Listeria innocua
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Listeria innocua
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENGTH: 495269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
US-10-398-221-2058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JS-10-398-221-2058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 30178, Application US/11097143
| Sequence 30178, Application US/11097143|
| Publication No. US200502085581 |
| GENERAL INPORMATION: |
| APPLICANT: et al. |
| TITLE OF INVENTION: DETECTION KIT, SUCH AS NUCLEIC ACID |
| TITLE OF INVENTION: DETECTION KIT, SUCH AS NUCLEIC ACID |
| TITLE OF INVENTION: DETECTION KIT, SUCH AS NUCLEIC ACID |
| TITLE OF INVENTION: DESOCPHILA GENES. |
| TITLE OF INVENTION: DROSOPHILA GENES. |
| FILE REPERENCE: CLOGO728 |
| CURRENT APPLICATION NUMBER: US/11/097,143 |
| CURRENT PILING DATE: 1999-10-05 |
| PRIOR FILING DATE: 1999-10-05 |
| PRIOR PILING DATE: 1999-10-28 |
| PRIOR PILING DATE: 1999-11-12 |
| PRIOR PILING DATE: 1999-11-12 |
| PRIOR PILING DATE: 1999-11-12 |
| PRIOR PILING DATE: 1999-11-28 |
| PRIOR PILING DATE: 1999-11-28 |
| PRIOR PILING DATE: 2000-01-12 |
| PRIOR PILING DATE: 2000-01-2 |
| PRIOR PILING DATE: 2000-01-3 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        369 ATAGTTACAGATACATAAAATACATACATAGCAAAAGGTACATATATAGAGACTTAAA 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              39 ATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATA 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36 ATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGGAAAACCCTT 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Сарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 32.4; DB 10; Length 2717; Pred. No. 8.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 32.4; DB 6; Length 484;
Pred. No. 3.6;
1; Mismatches 32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
PRIOR FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/167,363
PRIOR FILING DATE: 1999-11-23
PRIOR FILING DATE: 1999-11-23
PRIOR FILING DATE: 1999-09-28
PRIOR FILING DATE: 1999-09-28
PRIOR FILING DATE: 1999-09-09
NUMBER OF SEQ ID NOS: 325720
SOFTWARE: PASTEED FOR WINDOWS VERSION 4.0
SOFTWARE: 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 43008
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96 ATAAAACGCGGGTTTTCGCAGAAA 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190 ATGAAATACTTTTTTTCTGAGAAA 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16.9%;
56.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    16.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 60.74
Matches 51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: DROSOPHILA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 60; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
US-11-097-143-30178/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-11-097-143-30178
                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                             US-10-027-632-6585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 30178
LENGTH: 2717
                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
```

```
229177 cangaachceacacecchiccanhchcangmarhceesaacaccanhcaaaacach 229118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       229117 GATTACGCAATGAATGTTGCGGAAACTGCTTCTACTTTTGCTGAAATGATTATTGCCGAT 229058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95 TATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35 CATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2058, Application US/10398221
; Publication No. US20040018514A1
; Fublication No. US20040018514A1
; GENERAL INFORMATION:
   APPLICANT KUNST. Frederik
; APPLICANT GIASER, Philippe
; TITLE OF INVENTION: Listeria innocua, genome and applications
; FILE REPERENCE: 344 702 - US
; FILE REPERENCE: 344 702 - US
; CURRENT APPLICATION NUMBER: PCT/FR 01/0398,221
; CURRENT FILING DATE: 2003-03-27
; FRIOR APPLICATION NUMBER: FR 00/12 697
; FRIOR PILING DATE: 2000-10-04
; NUMBER OF SEQ ID NOS: 4025
; NUMBER OF SEQ ID NOS: 4025
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2058
                                                                                                                 VS-10-398-221-8/c
; Sequence 8, Application US/10398221
; Publication No. US20040018514A1
; Publication No. US20040018514A1
; GENERAL INFORMATION:
; APPLICANT: KUNST, Frederik
; APPLICANT: GLASER, Philippe
; TITLE OF INVENTION: Listeria innocua, genome and applications
; FILE REFERENCE: 344 702 - US
; CURRENT APPLICATION NUMBER: US/10/398,221
; CURRENT FILING DATE: 2003-03-27
; PRIOR PILING DATE: 2003-03-61
; PRIOR PLING DATE: 2000-10-04
; PRIOR PLING DATE: 2000-10-04
; PRIOR PLING DATE: 2000-10-04
; NUMBER OF SEQ ID NOS: 4025
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16.7%; Score 32; DB 7; Length 3011208;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 32; DB 7; Length 495269;
Pred. No. 1.4e+02;
0; Mismatches 75; Indels 0
309 ATACGCTTGTTTTCACTGAATTATTCAATACGATTTTTAGAGACAA 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , LOCATION: (1)..(end)
; OTHER INFORMATION: n can be any nucleotide: a, g, c or t/u
US-10-398-221-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            229057 GCTTCTGTAAAGATGCCAAAACAAAAGAAGA 229026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                155 GCAAAAGTGCTTGTCCCCTGACCAAGAAGGA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 50.7%;
Matches 77; Conservative
```

```
53 GTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTC 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-US-WEST-UDSAM-DELIUERC

SEQUENCE 691108, Application US/09925065A

Publication No. US20050228172A9

GENERAL INFORMATION:

APPLICANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REPERENCE: 108027.135

CURRENT APPLICATION NUMBER: US 60/243,096

PRIOR FILING DATE: 2000-10-24

PRIOR APPLICATION NUMBER: US 60/252,147

PRIOR APPLICATION NUMBER: US 60/250,092

PRIOR APPLICATION NUMBER: US 60/250,092

PRIOR FILING DATE: 2000-11-30

PRIOR FILING DATE: 2001-11-16

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-05-09

NUMBER OF SEQ ID NOS: 957086

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 691108
                                                                                                                                                                                                                                                                                                                 LOCATION: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, LOCATION: 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, LOCATION: 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, LOCATION: 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, LOCATION: 61, 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , 13, 14, 15, 16, 17, 18, 27, 28, 29, 30, 31, 32, 41, 42, 43, 44, 45, 46, 55, 56, 57, 58, 59, 60,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          113 GCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGT 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            419 GTACAAACAACCTAAATGTCCATCAATGGCTGAATGGATAAAGAAGAGGT 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FRATURE:
NAME/KEY: misc feature
NAME/KEY: misc feature
LOCATION: 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 10CATION: 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 10CATION: 79, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102
US-09-925-065A-691107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 31.6; DB 4; Length 1437;
Pred. No. 11;
0; Mismatches 49; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19, 20, 21, 22, 23, 24, 25, 26, 2 33, 34, 35, 36, 37, 38, 39, 40, 4 48, 49, 50, 51, 52, 53, 54, 5 61, 62
  PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR FILING DATE: 2001-01-16
PRIOR APPLICATION NUMBER: US 60/289,846
PRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 957086
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 691107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 55.5%;
Matches 61; Conservative (
                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                              NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION:
LOCATION:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION:
LOCATION:
                                                                                                                                                                                                                                DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 71957, Application US/10425115
Publication No US20040214272A1
Publication No US20040214272A1
Publication No US20040214272A1
APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Chou, Yihua
APPLICANT: Chou, Yihua
APPLICANT: Chou, Yihua
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21 (53222)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT PILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
                                                                                                                                          1529778 CATGAACTCGGACACGCCTTCCATTCTCATGTTATTCGGGAAGAGCCATTTGAAAACACT 1529837
                                                                                                                                                                                                                                                        1529838 GATTACGCAATGAATGTTGCGGAAACTGCTTCTACTTTTGCTGAAATGATTATTGCCGAT 1529897
                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             113
                                                                                                                                                                                                    95 TATAAAAÇGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 retritigitaartiggiggaacaratagaggigaacaagerrataaaggaagareerig 302
                                                                                            94
                                                                                         35 CATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 16.5%; Score 31.6; DB 8; Length 732; Best Local Similarity 58.5%; Pred. No. 8.1; Matches 55; Conservative 0; Mismatches 39; Indels
                                  Indels
Best Local Similarity 50.7%; Pred. No. 3.1e+02;
Matches 77; Conservative 0; Mismatches 75;
                                                                                                                                                                                                                                                                                                                                                                  1529898 GCTTCTGTAAAAGATGCCAAAACAAAGAAGA 1529929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        114 CAGAAACATGCGCTAGTATCATTGATGACAACAT 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 racaarcaacacricaracaaracaarcaar 269
                                                                                                                                                                                                                                                                                                              GCAAAAGTGCTTGTCCCCTGACCCAAGAAGGA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: Clone ID: MRT4577_165627C.1 US-10-425-115-71957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: unsure
LOCATION: (1)..(732)
OTHER INFORMATION: unsure at all n locations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-925-065A-691107/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-425-115-71957/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 71957
LENGTH: 732
                                                                                                                                                                                                                                                                                                                 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
```

ô

0; Gaps

77,

76, 91,

```
OTHER INFORMATION: Distance between 3'-terminus of neighbour sequence of OTHER INFORMATION: sequence listing upward to telomere on chrosomal short arm and JOTHER INFORMATION: 5'-terminus of this base sequence: 7491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           47 IGATICGICIATITICAATACCIICGGGGAAATAGAIGIGAAAACCCTIATAAAACGCGG 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313 idciriccariririricariaacriaadadaaaharacraricaarcciriggidaaarrdda 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53 GTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAAGCCCTTATAAAACGCGGGTTTTC 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           107 GTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGT 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 16.2%; Score 31.2; DB 8; Length 360; Best Local Similarity 54.3%; Pred. No. 7.9; Matches 63; Conservative 0; Mismatches 53; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Distance between a terminus base of telomere on OTHER INFORMATION: chromosomal short arm and 5'-terminus of this base OTHER INFORMATION: sequence : 54730897
                                                                                                ; ICCATION: 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 10CATION: 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 10CATION: 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102 OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             113 GCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCGAAAAGT 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 12097, Application US/10674124A

Publication No. US20040197797A1

GENERAL INFORMATION:

APPLICANT: INFORMATION:

APPLICANT: TAMIYA, Gen

TITLE OF INVENTION: GENE MAPPING METHOD USING MICROSATELLITE

TITLE OF INVENTION: GENETIC POLYMORPHISM MARKERS

FILE REFERENCE: ORIN-003CIP

CURRENT APPLICATION NUMBER: US/10/674,124A

CURRENT PILING DATE: 2003-09-26

PRIOR APPLICATION NUMBER: 10/257,511

PRIOR APPLICATION NUMBER: PCT/PP00/07621

PRIOR PLING DATE: 2000-01-30

PRIOR PLING DATE: 2000-04-13

PRIOR PLING DATE: 2000-04-13

PRIOR PLING DATE: 2000-04-13

PRIOR APPLICATION NUMBER: JP2002-327516

PRIOR APPLICATION NUMBER: JP2002-327516
                                                                                                                                                                                                                                                                                                                       16.5%; Score 31.6; DB 4; Length 1437; 55.5%; Pred. No. 11; tive 0; Mismatches 49; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
OTHER INFORMATION: Located on chromosome 7
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
OTHER INFORMATION: AC007735.2_88547
Ö
OTHER INFORMATION: n = A, T, C or
                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 55.5
Matches 61; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Homo sapiens
                                  FEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
US-10-674-124A-12097/c
                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
```

```
Db 253 TGTCTACCAAATGTGTCTGTCTAGTACTGATTACAAGATTATAAAAATATAAGT 198
Search completed: March 7, 2006, 13:34:30
Job time: 534.953 8ec8
```

```
טטט
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 691107,
Sequence 49112, A
Sequence 49112, A
Sequence 49113, A
Sequence 2895, Ap
Sequence 65588, A
Sequence 170277,
Sequence 30855,
Sequence 30855,
Sequence 30855,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 598374,
Sequence 905740,
Sequence 912520,
Sequence 149916,
Sequence 44581, A
Sequence 603, App
Sequence 3485, App
Sequence 3485, App
                                                                                      March 7, 2006, 12:18:50 ; Search time 1775.25 Seconds
    (without alignments)
    237.125 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                      1 gctgggcgcggccatga......tgacccaagaaggatgcttt 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
                                                                                                                                                                                                                                                                                                                                                                               Published Applications NA New:*

1: /cgn2_6/ptodata/1/pubpna/USOB NEW PUB.seq:*

2: /cgn2_6/ptodata/1/pubpna/USOB_NEW_PUB.seq:*

3: /cgn2_6/ptodata/1/pubpna/NEW_PUB.seq:*

4: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*

5: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*

6: /cgn2_6/ptodata/1/pubpna/USOB_NEW_PUB.seq:*

7: /cgn2_6/ptodata/1/pubpna/USOB_NEW_PUB.seq:*

7: /cgn2_6/ptodata/1/pubpna/USOB_NEW_PUB.seq:*

9: /cgn2_6/ptodata/1/pubpna/USOB_NEW_PUB.seq:*

10: /cgn2_6/ptodata/1/pubpna/USIB_NEW_PUB.seq:*

11: /cgn2_6/ptodata/1/pubpna/USIB_NEW_PUB.seq:*

12: /cgn2_6/ptodata/1/pubpna/USIB_NEW_PUB.seq:*

13: /cgn2_6/ptodata/1/pubpna/USIB_NEW_PUB.seq:*

13: /cgn2_6/ptodata/1/pubpna/USIB_NEW_PUB.seq:*
                                                                                                                                                                                                                                                              14437070
            GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-925-065A-691107
US-09-925-065A-691108
US-09-925-065A-49312
US-11-124-36BA-2895
US-09-925-065A-170279
US-09-925-065A-170279
US-09-925-065A-170279
US-09-925-065A-308556
US-09-925-065A-308557
US-09-925-065A-308557
US-09-925-065A-39877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-793-626-603
US-10-793-626-3485
US-09-925-065A-460994
                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                    7218535 seqs, 1096242582 residues
                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                               nucleic search, using sw model
                                                                                                                                      US-10-782-899-1_COPY_1_192
192
                                                                                                                                                                                             IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                 5:
7:
7:
10:
                                                                                                                                            Title:
Perfect score:
                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM nucleic
                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  υ
```

```
Sequence 684507,
Sequence 11302, A
Sequence 11302, A
Sequence 15123,
Sequence 35910,
Sequence 157, App
Sequence 160, App
Sequence 160, App
Sequence 198347,
Sequence 398347,
Sequence 50958,
Sequence 795197,
Sequence 616829,
Sequence 616831,
Sequence 616831,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 45, Appl
Sequence 150, App
Sequence 83, Appl
Sequence 148, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-925-065A-691107/c

i Sequence 691107, Application US/09925065A

i Sequence 691107, Application US/09925065A

i GENERAL INFORMATION:

i TITLE OF INVENTION: Muclectide Polymorphisms in the Human Genome

i TITLE OF INVENTION: Muclectide Polymorphisms in the Human Genome

i TITLE OF INVENTION: Muclectide Polymorphisms in the Human Genome

i TITLE OF INVENTION: Muclectide Polymorphisms in the Human Genome

i TITLE OF INVENTION: MUCHER: US/09/925,065A

CURRENT PILING DATE: 2000-10-24

PRIOR PILING DATE: 2000-11-20

i PRIOR PILING DATE: 2000-11-20

i PRIOR PILING DATE: 2001-11-30

i PRIOR PILING DATE: 2001-01-16

i PRIOR APPLICATION NUMBER: US 60/289,846

i PRIOR PILING DATE: 2001-01-16

i PRIOR APPLICATION NUMBER: US 60/289,846

i PRIOR APPLICATION NUMBER: US 60/289,046

i PRIOR APPLICATION NUMBER: US 60/289,046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, LOCATION: 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, LOCATION: 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, LOCATION: 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, LOCATION: 61, 62

OTHER INFORMATION: n = A,T,C or G
US-09-925-065A-684508

US-09-925-065A-13102

US-09-925-065A-13102

US-09-925-065A-51223

US-09-925-065A-51223

US-09-925-065A-463323

US-09-925-065A-95910

US-09-925-065A-198347

US-09-925-065A-398347

US-09-925-065A-398347

US-09-925-065A-398347

US-09-925-065A-795197

US-09-925-065A-616830

US-09-925-065A-616831

US-09-925-065A-616831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-11-186-284-150
US-10-921-793-83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-11-186-284-148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ġ
      TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: misc_feature
```

77,

76, 91,

71, 72, 73, 74, 7 86, 87, 88, 89, 9 100, 101, 102

70, 85, 99, 69 94, 98,

```
SEQ ID NO 49313
LENGTH: 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTC 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       479 GİCİTLIGIGAAAGCCAAALGIGALAALACALGIGAAAGCALTILGIGAACLAAAGIGİLT 420
                                                                                                                                                          53 GICTATTITCAATACCTICGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTC 112
                                                                                                                                                                                                                              479 Gretrigigaaagecaaargrgaraarakaracargrgaaagearrrrgrgaacraaagrgrrr 420
                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               77,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
US-09-925-065A-691108/c
; Sequence 691108, Application US/09925065A
; Sequence 691108, Application US/09925065A
; Sequence 691108 Application US/09925065A
; Publication No. US2004018104A1
; GENERAL INFORMATION:
; AFPLICANT: Wang, David G.
; TITLE OF INVENTION: Identification and Mapping of Single
; TITLE OF INVENTION: Identification and Mapping of Single
; TITLE OF INVENTION: NUMBER: US/09/925,065A
; CURRENT APPLICATION NUMBER: US 60/243,096
; PRIOR FILING DATE: 2000-10-08
; PRIOR FILING DATE: 2000-11-20
; PRIOR FILING DATE: 2000-11-30
; PRIOR FILING DATE: 2000-11-30
; PRIOR FILING DATE: 2000-11-16
; PRIOR FILING DATE: 2001-01-16
; PRIOR PILING DATE: 2000-11-16
; PRIOR PILING DATE: 2001-01-16
; PRIOR FILING DATE: 2001-01-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAMB/KEY: misc_feature

LOCATION: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 16.

LOCATION: 3, 3, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 20.

LOCATION: 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 10.

LOCATION: 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 0THER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                            419 GTACAAACAACCTAAATGTCCATCAATGGCTGAATGGATAAAGAAGAAGGT 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGT 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  113 GCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGT 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 16.5%; Score 31.6; DB 6; Length 1437; Best Local Similarity 55.5%; Pred. No. 9.4; Matches 61; Conservative 0; Mismatches 49; Indels 0.
Query Match
16.5%; Score 31.6; DB 6; Length 1437;
Best Local Similarity 55.5%; Pred. No. 9.4;
Matches 61; Conservative 0; Mismatches 49; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc_feature

; LOCATION: 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75,

; LOCATION: 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90,

; LOCATION: 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102

; OTHER INFORMATION: n = A,T,C or G

US-09-925-065A-691108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  419
                                                                                                                                                              ò
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 AAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAAT 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 AAGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAAT 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. Sequence 49313, Application US/09925065A
2. Sequence 49313, Application US/09925065A
3. Publication No. US20040181048A1
3. GRAREAL INFORMATION:
3. APPLICANT: WANGY David G.
3. TITLE OF INVENTION: Identification and Mapping of Single
3. TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
5. FILE REFERENCE: 108827.135
6. CURRENT FILING DATE: 2001-08-08
7. FRIOR APPLICATION NUMBER: US 60/243,096
7. FRIOR APPLICATION NUMBER: US 60/250,147
7. PRIOR PILING DATE: 2000-11-20
7. FRIOR APPLICATION NUMBER: US 60/250,092
7. FRIOR APPLICATION NUMBER: US 60/250,092
7. FRIOR APPLICATION NUMBER: US 60/261,766
7. FRIOR APPLICATION NUMBER: US 60/289,846
7. FRIOR APPLICATION NUMBER: US 60/289,846
7. FRIOR APPLICATION NUMBER: US 60/289,846
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILING DATE: 2001-01-16
7. FRIOR PILI
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REPERBNCE: 108877.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2000-10-24
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR FILING DATE: 2000-11-20
PRIOR FILING DATE: 2000-11-20
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1485;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 16.2%; Score 31.2; DB 6; Length 1 Best Local Similarity 57.0%; Pred. No. 12; Matches 57; Conservative 0; Mismatches 43; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 16.2%; Score 31.2; DB 6; Length 1 Best Local Similarity 57.0%; Pred. No. 12; Matches 57; Conservative 0; Mismatches 43; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1122 AAATAGGAAGATGTTTGTTACTCTAGCATAATAAA 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80 AGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAA 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 957086
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 49312
LENGTH: 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo sapiens
US-09-925-065A-49312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-925-065A-49313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo B
US-09-925-065A-49313
```

= = -=

US-09-925-065A-49312 ; Sequence 49312, Application US/09925065A ; Publication No. US20040181048A1

셤

8

ઠ

```
1186 chaachaaangrehreaggeaanhaahtrigacaachenahgaaanagacaaarteer 1245
                                                                                                                                                                                                                                                                                              55 CTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGC 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43 TGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCCTTATAAAAC 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1246 AGAAAAACGCACATGAAAATAAAATATAATCATATAAATGTTAAAAATATTGAATCCT 1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            616 irrcigarirgigiaarirrrcirciricigaaaaarrragrirraccararcrigraar 557
                                                                                                                                                                                                                                                                                                                                                                                                                                115 AGAAACATGCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCT 173
                                                                                                                                                                                                                                    Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108827.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
PRIOR PILING DATE: 2000-10-24
PRIOR FILING DATE: 2000-11-20
PRIOR FILING DATE: 2000-11-20
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2001-11-6
PRIOR FILING DATE: 2001-11-6
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Mucleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108627.135
CURRENT APPLICATION NUMBER: US/09/925,065A

CURRENT FILING DATE: 2001-08-08
                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 6; Length 639;
                                                                                                                                                         Score 31; DB 6; Length 1771;
Pred. No. 15;
0; Mismatches 55; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                103 GCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              556 GCAGATITCTGGAGACAATTCTCTGTTTTTGTTTATCTCAAAAG 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 30.8; DB Fred. No. 13; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 170277, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 170278, Application US/09925065A, Publication No. US20040181048A1, GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR FILING DATE: 2000-10-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ch 16.0%;
1 Similarity 55.7%;
59; Conservative
                                                                                                                                                                Query Match
Best Local Similarity 53.8%;
Matches 64; Conservative
                                  TYPE: DNA
CORGANISM: Homo sapiens
US-09-925-065A-65588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens
US-09-925-065A-170277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-925-065A-170278/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-925-065A-170277/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FastS
SEQ ID NO 170277
      LENGTH: 1771
                                                                                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                               Sequence 2895, Application US/11124368A

Sequence 2895, Application US/11124368A

Publication No. US20050287559A1

GENERAL INFORMATION:

APPLICANT: Michele Cargill

APPLICANT: May Luke

TITLE OF INVENTION: Genetic Polymorphisms Associated with

TITLE OF INVENTION: Genetic Polymorphisms Associated with

TITLE OF INVENTION: Genetic Polymorphisms Associated with

TITLE OF INVENTION: Genetic Polymorphisms Associated with

TITLE OF INVENTION: Genetic Polymorphisms Associated with

TITLE OF INVENTION: Genetic Polymorphisms Associated with

TITLE OF INVENTION: Genetic Polymorphisms Associated with

TITLE OF INVENTION NUMBER: US 60/568,845

PRIOR PILING DATE: 2004-05-07

PRIOR PILING DATE: 2004-11-09

NUMBER OF SEQ ID NOS: 21112

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 2895

TANDE. NUMBER OF SEQ ID NOS: 21112

SEQ ID NO 2895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63419 AAGGACCTCAAGGGAGTAATAGAAAAAACCTTCCAACAAGGGGGTGATGAAGGGAGAT 63360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         123 GCGCTAGTATCATTGATGACAACATGGACTAAGCAAAAGTGCTTGTCCCCTGACCCAAGA 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63 AATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:

JULIANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: NUCLECTION OF STATES
CURRENT APPLICATION NUMBER: US 60/243,096
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR APPLICATION NUMBER: US 60/250,147
PRIOR PILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR PRILING DATE: 2000-11-30
PRIOR PRILING DATE: 2010-11-16
PRIOR FILING DATE: 2011-01-16
PRIOR FILING DATE: 2011-06-09
NUMBER OF SEQ ID NOS: 957086
SEQ ID NO 65588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 96109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                    80 AGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCAGAAA 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
16.2%; Score 31.2; DE
Best Local Similarity 53.2%; Pred. No. 43;
Matches 66; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Homo sapiens
US-11-124-368A-2895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63299 AAGA 63296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             183 AGGA 186
                                                                                                                                                                                                                                 ULT 5
11-124-368A-2895/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-925-065A-65588
```

g

ð

셤 ò 윱

ઠ

ô

```
397 cargerrirarriaaarreagacrirricaaaaccrirerererrirararraccaacara 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95 TATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              337 aaittgaaaaccagccitaccagacatriaagaragccatgatraararaaacargaaaat 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35 CATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCT
                                                                                                                                                                    JOSTON TO SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR OF SECURIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JENERAL INFORMATION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REPERENCE: 108827.135
CURRENT APPLICATION NUMBER: US 60/243,096
FRIOR APPLICATION NUMBER: US 60/243,096
FRIOR PILING DATE: 2000-10-24
FRIOR FILING DATE: 2000-11-20
FRIOR PELING DATE: 2000-11-30
FRIOR APPLICATION NUMBER: US 60/250,092
FRIOR APPLICATION NUMBER: US 60/261,766
FRIOR APPLICATION NUMBER: US 60/289,846
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 30.6; DB
Pred. No. 14;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 277 TTAAAATGTTTGCCCATTTACCCATGTA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155 GCAAAAGTGCTTGTCCCCTGACCCAAGAA 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 957086
SOFTWARES FastSEQ for Windows Version 4.0
SEQ ID NO 308557
LENGTH: 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-925-065A-396377/c
; Sequence 396377, Application US/09925065A
; Publication No. US20040181048A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 15.9%;
Best Local Similarity 50.3%;
Matches 75; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo sapiens
US-09-925-065A-308557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          43 IGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAAC 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            616 TITICIGALTIGGEAATTITICITICITICIGAAAATTITAGITITACCATATCTIGTAAT 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGGTTTTTATTTAAATTGAGACTTTTCAAAACCTTGTGTGTTTTTTATATTACCAACATA 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95 TATAAAACGCGGGTTTTCGCAGAAACATGCGCTAGTATCATTGATGACAACATGGACTAA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         337 aaingaaaaccagccinaccagacannaaganagccanganaanananacangaaan 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35 CATAATCTTGTCTGATTCGTCTATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCT 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Publication No. US20040181048A1

Fublication No. US20040181048A1

Fublication No. US20040181048A1

GENERAL INFORMATION:

APPLICANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single

TITLE OF INVENTION: Identification and Mapping of Single

TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome

FILE REFERENCE: 108827.135

CURRENT APPLICATION NUMBER: US/09/925,065A

CURRENT PILING DATE: 2000-10-24

PRIOR FILING DATE: 2000-11-20

PRIOR FILING DATE: 2000-11-20

PRIOR FILING DATE: 2000-11-30

PRIOR FILING DATE: 2001-01-16

PRIOR APPLICATION NUMBER: US 60/250,092

PRIOR APPLICATION NUMBER: US 60/261,766

PRIOR APPLICATION NUMBER: US 60/289,846

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-01-05-09

NUMBER OF SEQ ID NOS: 957086

NUMBER OF SEQ ID NOS: 957086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15.9%; Score 30.6; DB 6; Length 572; 50.3%; Pred. No. 14; ive 0; Mismatches 74; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16.0%; Score 30.8; DB 6; Length 639; 55.7%; Pred. No. 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             103 GCGGGTTTTCGCAGAACATGCGCTAGTATCATTGATGACAACATG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tradadaricririccicaritraciccariera 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          155 GCAAAAGTGCTTGTCCCCTGACCCAAGAA 183
PRIOR APPLICATION NUMBER: US 60/252,147
PRIOR FILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
SEQ ID NOS: 957086
SOFTWARE: PRESEQ for Windows Version 4.0
SEQ ID NO 170278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 50.3
Matches 75; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 55.7
Matches 59; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
US-09-925-065A-170278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -09-925-065A-308556/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-925-065A-308556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 308556
LENGTH: 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
```

```
JS-09-925-065A-912520/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-925-065A-905740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 912520
LENGTH: 670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                 56 TATTITCAATACCTICGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCA 115
                                                                                                                                                                                                                                                                                                                              544 TACTITICATTAACTITTAGGAAGCTGAAGGGAAAAAATCAATAAAGCAGCTCTTGACT 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       56 TATTTTCAATACCTTCGGGGAAATAGATGTGAAAACCCTTATAAAACGCGGGTTTTCGCA 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63 TACTITICATIAACTITIAGGAAGCTGAAGGGGAAAAATCAATAAAGCAGCTCTTGACT 122
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nuclectide Polymorphisms in the Human Genome
FILE REPERENCE: 108827.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR FILING DATE: 2000-10-24
PRIOR PILING DATE: 2000-11-20
PRIOR PILING DATE: 2000-11-20
PRIOR PILING DATE: 2000-11-30
PRIOR PILING DATE: 2000-11-6
PRIOR PILING DATE: 2000-10-6
PRIOR PILING DATE: 2000-10-6
PRIOR PILING DATE: 2000-10-6
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108827.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR APPLICATION NUMBER: US 60/252,147
                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                       DB 6; Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 606;
                                                                                                                                    Score 30.6; DB 6; Length 6 Pred. No. 15; 0; Mismatches 39; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15.9%; Score 30.6; DB 6;
58.1%; Pred. No. 15;
tive 0; Mismatches 39;
                                                                                                                                                                                                                                                                                                                                                                                              116 GAAACATGCGCTAGTATCATTGATGACAACATG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                              484 caaagargagcrgaaaraaragaaraaarg 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        116 GAAACATGCGCTAGTATCATTGATGACAACATG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 123 caaagargagcrgaaaraaracargaaraaarg 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 599874, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 905740, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION:
                                                                                                                                Query Match
Best Local Similarity 58.1%;
Matches 54; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 58.14
Matches 54; Conservative
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-925-065A-396377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Homo sapiens
US-09-925-065A-599874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
US-09-925-065A-905740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-09-925-065A-599874
                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                    ઠે
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541 ACTAACTAGACAGAGATATTCTTGTAATTTACTTTTGTTTTACATACTCCACATATAATA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 AGTGGCTTGACAAGCATAATCTTGTCTGATTCGTCTATTTTTCAATACCTTCGGGGAAATA 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 130 ACTAACTAGACAGAGATATTCTTGTAATTTACTTTTGTTTTACATACTCACATATAAATA 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 AGIGGCTIGACAAGCAIAAICTIGICTGATICGICTATITICAAIACCTICGGGAAAIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Uncleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108827.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
FRIOR PILING DATE: 2000-10-24
FRIOR FILING DATE: 2000-11-20
FRIOR PILING DATE: 2000-11-20
FRIOR PILING DATE: 2001-11-0
FRIOR FILING DATE: 2001-11-6
FRIOR FILING DATE: 2001-11-6
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-16
FRIOR FILING DATE: 2001-01-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 670;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 670;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 30.6; DB; Pred. No. 15; 0; Mismatches
PRIOR FILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2001-01-16
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR APPLICATION NUMBER: US 60/289,846
PRIOR FILING DATE: 2001-03-09
PRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 95/086
SOFTWARE: FABLSEQ for Windows Version 4.0
SEQ ID NO 905740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15.9%; Score 30.6; 60.0%; Pred. No. 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 912520, Application US/09925065A; Publication No. US20040181048A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81 GATGTGAAACCCTTATAAAACGCG 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
US-09-925-065A-149916
; Sequence 149916, Application US/09925065A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601 TATGATATAACATGTATAGAACGAG 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81 GATGTGAAAACCCTTATAAAACGCG 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70 TATGATATAACATGTATAGAACGAG 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 60.0%;
Matches 51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Homo sapiens
US-09-925-065A-912520
```

```
365 AAGITICITAAGAAGAATAAITICIGITGITTITICATITAACATTITACCIAAAGICGATA 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80 AGAIGIGAAAACCCTTATAAAACGCGGGTTTTTCGCAGAAACAIGCGCTAGTATCATTGAT 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 AAGIGGCTIGACAAGCAIAAICTIGICIGATICGICIAITITICAAIACCTICGGGAAAI 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICATN: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Uncleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108827.135

CURRENT APPLICATION NUMBER: US/09/925,065A

CURRENT APPLICATION NUMBER: US 60/243,096

PRIOR APPLICATION NUMBER: US 60/252,147

PRIOR FILING DATE: 2000-10-24

PRIOR FILING DATE: 2000-11-30

PRIOR FILING DATE: 2000-11-30

PRIOR FILING DATE: 2000-10-16

PRIOR FILING DATE: 2000-10-16

PRIOR APPLICATION NUMBER: US 60/261,766

PRIOR APPLICATION NUMBER: US 60/289,846

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 15.8%; Score 30.4; DB 6; Length 528; Best Local Similarity 50.0%; Pred. No. 16; Matches 73; Conservative 1; Mismatches 72; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               485 AAYCCTCCATAATGATACAAACTGAT 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140 GACAACATGGACTAAGCAAAAGTGCT 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7, 2006, 13:20:42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Homo sapiens
US-09-925-065A-149916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Search completed: March
Job time : 1776.25 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
```

OM nucleic

<u>e</u>

Run

Sequence:

```
CO363747 Sequence
Continuation (22 o
AC130043 Ratus no
AC156070 Bos tauru
AX443890 Streptomy
AC094151 Rattus no
AL669928 Mouse DNA
Continuation (162
AP005726 Oryza sat
AP005726 Oryza sat
AR110305 Oryza sat
AX12030 Coryza sat
AX12030 Coryza sat
AX12030 Homolture
AX110305 Coryza sat
AX120316 Homo sapi
AC16901 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600 bp DNA linear BCT 15-JAN-2003
Bifidobacterium longum biovar Longum hup gene for histone-like HU AB072446
                                                                                                                                                                                                                                                                                 AR480420 Sequence
AR586187 Sequence
CC412044 Sequence
AF246897 Streptoco
AC092021 Homo sapi
AL356219 Human DNA
AC105921 Homo sapi
                                                                                                                                                                                                                                                      AC069403 Homo Bapi
AC097977 Rattus no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (03-OCT-2001) Yasunobu Kano, Kyoto Pharmsceutical University, Institute of Molecular and Cellular Biology for Pharmsceutical Sciences; 1. Shichono-cho, Misasagi, Yamashina-ku, Kyoto 6078412, Jamashina-ku, Ryoto 6078412, Pax: 81755954799)
Tel:81755954719, Fax: 81755954799)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bifidobacterium longum biovar Longum
Bacteria; Actinobacteria; Actinobacteridae; Bifidobacteriales;
Bifidobacteriaceae; Bifidobacterium.

    600
    forganism="Bifidobacterium longum biovar Longum"
/mol_type="genomic DNA"
/db.refe"taxon:1679"
    180. .185

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cloning and expression in Escherichia coli of a gene, the histone-like protein HU of Bifidobacterium longum Biosci. Biotechnol. Biochem. 66 (3), 598-603 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /transT_table=11
/producte=histone-like HU protein HBl"
/protein id="BAB8650.1"
/db_xrefe="GI:19918954"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Takeuchi, A., Matsumura, H. and Kano, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bifidobacterium longum biovar Longum Bifidobacterium longum biovar Longum
                                                                                                                AP008214_161
AP005726
                                                                                                                                                                                                                                                                                                                                                                                                                   ALIGNMENTS
                                                                                  AC094151
AL669928
                                                                                                                                                                                 AY129336
BX276099
AX16901
AC024405
AC069403
AC069403
AC069403
AC069403
AC069604
AF246897
AF246897
AC02201
AC156219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start=1
/transl_table=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AB072446.1 GI:19918953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="hup"
193. .474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "gene="hup"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 600)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
                                                                                                 100326
110000
151080
153065
436
821
26309
110000
223086
                                                                                                                                                                                  56276
110547
125020
                                                                                                                                                                                                                          164179
174118
185341
230664
                                                                                                                                                                                                                                                                                  870
885
3520
16853
37083
115469
                                                        229616
                                                                                    236921
 12005055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kano, Y.

      WWWWW
      WWWWW
      WWWW
      WWW
      WWW
      WW
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      W
      <
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RBS
gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AB072446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
 0000
                                                                                                                                                                                                       טטט
                                                                                                                                                                                                                                                                                                                                              υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AB072446 Bifidobac
BD144660 Drug for
Continuation (23 o
AX49278 Sequence
AX53955 Sequence
AX539151 Pirellula
AL59043 chromosom
AX119844 Oryza sat
AC138542 Magnaport
AC13854 Magnaport
AC13854 Magnaport
AC13854 Sereptoco
CR031675 Streptoco
CR031675 Streptoco
AF005155 Streptoco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AC096255 Rattus no
AC125707 Rattus no
AL935257 Lactobaci
                                                                                              7, 2006, 11:25:13 ; Search time 1196.77 Seconds (without alignments) 6127.182 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                  1 tgaccttctgctcgtagcga......tattccggactagttcagcg 129
                                                                                                                                                                                                                                                                                    11766282
              5.1.7
Biocceleration Ltd.
                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                      5883141 segs, 28421725653 residues
              GenCore version
Copyright (c) 1993 - 2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BD144660
AE014295_22
AX492788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                  US-10-782-899-1_COPY_472_600
129
                                                                                                                                                                                                                                                                                                                                                                                    summaries
                                                                   nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BX294151
CNSO7EGA
AK1319844
AC138542
AC138544
AC14889
AC033397
AC0931675
AF094575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AC096255
AC125707
AL935257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AX553955
                                                                                                                                                                                                                            Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                       Maximum Match 100
Listing first 45
                                                                                                                                                                                                                                                                                                              length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                       GenEmbl:*

1: 90 ba:*

1: 90 in:*

1: 90 om:*

1: 90 om:*

1: 90 pat:*

1: 90 pat:*

1: 90 pat:*

20 pr:*

20 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*

30 pr:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0 600
100.0 56646
100.0 156646
25.3 295650
24.3 295650
24.3 30417
24.3 30417
24.3 30417
24.0 5832
24.0 5832
24.0 18617
24.0 18617
24.0 18617
24.0 18617
23.9 242330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                              IDENTITY NUC
                                                                                                March
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9:
111:
13:
                                                                                                                                                                                                                                                                                                                Bed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       129
129
129
129
32.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30.8
30.8
                                                                                                                                                                     Perfect score:
                                                                                                                                                                                                             Scoring table:
```

Minimum DB Maximum DB

Database

υv

υυ

Result No.

ט ט 000

hup, encoding

```
TGGTCGGGGTCTTTTTGTTGTGTGTGTGTGTTGTCCAACCGTATTATTCCGGACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="1106 seq in place of 1099 because seq 1 (2.256.638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bifidobacterium longum biovar Longum
Bifidobacterium longum biovar Longum
Bacteria, Actinobacteria, Actinobacteridae, Bifidobacteriales;
Bifidobacteriaceae, Bifidobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGACCTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGGACGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .156638
/organism="Bifidobacterium longum biovar Longum"
/mol_type="unassigned DNA"
/db_xref="taxon:1679"
                                                                                                                                             LOCUS AE014295 Accession AE014295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bacterial strain and genome of bifidobacterium Patent: EP 1227152-A 1106 31-JUL-2002; Societe des Produits Nestle S.A. (CH) Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 129; DB 1;
100.0%; Pred. No. 7.5e-30;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1106 from Patent EP1227152. AX492788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AX492788.1 GI:23338471
                                                                                                                                                 fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.
Best Local Similarity 100.
Matches 129; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41266 AGTTCAGCG 41258
|||||||||
592 AGTTCAGCG 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 AGTTCAGCG 129
                                                                                                                                                 into 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                None.
                                                                                                                                                 Sequence split
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             н
                                                                                                         22/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AX492788/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
                                                                                   RESULT 3
AE014295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
  /translation="maynksdlysklacksnltkacheraynapodypypamkscegl
KLTGLFSAERVKRPARTGRNPRTGECIDIPASYCVRISAGSLLKKAVTE"
                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAT 17-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 TGGTCGGGGTCTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          532 TGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCCAACCGTATTATTCCGGACT 591
                                                                                                                                                                                            16GTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACT 120
                                                                                                                                                                                                                                                                         532 TGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACT 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 TGACCTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DITIONORUM SONDERS

DESCRIPTION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY
                                                                                                                                                                       Gaps
                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Drug for gene therapy using anaerobic bacteria FH Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 600;
                                                                                       Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drug for gene therapy using anaerobic bacteria.
BD144660

    600
    602ganism="Bifidobacterium longum"
/mol_type="genomic DNA"
/db_xref="taxon:216816"

                                                                                   100.0%; Score 129; DB 1;
100.0%; Pred. No. 7.7e-30;
ative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 129; DB 6;
100.0%; Pred. No. 7.7e-30;
ative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (193). .(471).
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 dq 009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BD144660.1 GI:27850418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 AGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                     121 AGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                              AGTTCAGCG 600
                                                                                                         Best Local Similarity
Matches 129; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       al Similarity
129; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BD144660
                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
BD144660
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                         ð
                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                          셤
```

Gaps

ö

Length 56640; Indels PAT 26-SEP-2002

linear

δ 셤 ઠે 셤 ઠે 셤

```
BX294151

ON Pirellula ep. strain 1 complete genome; segment 19/24.

BX294151 BX119912

BX294151. BX119912

EX294151. BX119912

Complete genome; segment 19/24.

Rhodopirellula baltica SH 1

SM Rhodopirellula baltica SH 1

SM Rhodopirellula baltica SH 1

SM Rhodopirellula baltica SH 1

SM Rhodopirellula baltica SH 1

SM Rhodopirellula baltica SH 1

SM Rhodopirellula baltica SH 1

SM Rhodopirellula baltica SH 1

SM Rhodopirellula baltica SH 1

Bacteria; Planctomycetes; Planctomycetacia; Planctomycetales;

Planctomycetaceae; Rhodopirellula.

El (bases 1 to 295650)

SG Glockner, P. O., Rube, M., Bauer, M., Teelling, H., Lombardot, T., Ludwig, W., Gade, D., Back, A., Borzym, K., Heitmann, K., Rabus, R., Schleener, H., Anann, R. and Reinhardt, R.

Complete genome sequence of the marine planctomycete Pirellula sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (21-37M-2003) Max Planck Institute for Molecular Genetics, proScience Ihnestrasse 73, D-14195 Berlin, Germany Max Planck Institute for Marine Microbiology Celsiusstrasse 1, D-28359 Eremen, Germany
This project was carried out by
*Max Planck Institute for Molecular Genetics, Berlin, Germany; *Max Planck Institute for Marine Microbiology, Bremen, Germany; in the fremework of the REGX-project, http://www.regx.de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              See http://www.micro-genomes.mpg.de/pirellula/ for more information including minimal tiling path from a set of 220 cosmids out of 908. See the misc feature tag below for the boundaries of the MTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Automated annotation was done with the software package Pedant Pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence was finished as follows unless otherwise noted: all regions were double stranded, sequenced with an alternate chemistry, or coveredby high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; allregions were covered by at least one plasmid Sequence; assembly was additionally confirmed by long range pcr and cosmid end sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z. (Dases 1 to 295650)
Kube, M., Borzym, K., Heitmann, K., Klages, S., Marquardt, I.,
Lebrack, S., Beck, A., Pawlik, R., Reinhardt, R., Gloeckner, F.O.,
Bauer, M., Teelling, H., Lombardot, T., Ludwig, W., Gade, D., Rabus, R.,
Schlesner, H. and Amann, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Three different programs (Glimmer, Critica and Orpheus) were used for ORF-prediction. A nonredundant list of ORFs was generated by suitable parsing of the results.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ds. ------ Manotation
Center: Max Planck Institute for Marine Microbiology
Celsiusstrasse 1, D-28359 Bremen, Germany.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center: Max Planck Institute for Molecular Genetics
Center code: MPIMG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Phone: +49 (0) 421 2028 938 Fax: +49 (0) 421 2028 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Proc. Natl. Acad. Sci. U.S.A. 100 (14), 8298-8303 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequencing vector: pUC19; 100% of reads
Sequencing vector: pUC19; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 7142841 bases at least Q40
Consensus quality: 7145188 bases at least Q30
Consensus quality: 7145484 bases at least Q20
Quality coverage: 8.03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center Code: MPIMM
Email: fog@mpi-bremen.de
                                                                                141579 ÁGTTCÁGCG 141571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genome Center
                                121
                                                                                                                                                          RESULT 6
BX294151/c
                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                     용
                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                             141631 TGGTCGGGGTCTTTTTGTTGTGGTGTGTGTGTTGTCCCAACCGTATTATTCCGGACT 141572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141639 TGGTCGGGGTCTTTTTGTTGTGGTGTGTGTGTTGTCCCAACCGTATTATTCCGGACT 141580
                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAT 27-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                  11 to 0.349.980 length: 349980
11 to 0.649.980 length: 349980
12 to 0.949.980 length: 349980
13 to 1.249.980 length: 349980
13 to 1.549.980 length: 349980
13 to 1.849.980 length: 349980
14 to 2.149.980 length: 349980
15 to 2.256.638 length: 156638"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 TGGTCGGGGTCTTTTTGTTGTTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                TGACCTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bifidobacterium longum biovar Longum
Bifidobacterium longum biovar Longum
Bacteria; Actinobacteria; Actinobacteridae; Bifidobacteriales;
Bifidobacteriaceae; Bifidobacterium.
                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arigoni, F., Delley, M., Mollet, B., Pridmore, R.D., Schell, M.A., Pohl, T.G. and Zwahlen, M.C.
The genome of a bifidobacterium
Patent: WO 02014798.4 9 5-SEP-2002;
SOCIETE DES PRODUITS NESTLE S.A. (CH)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                          Length 156638;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 156646;
                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                        100.0%; Score 129; DB 6; ilarity 100.0%; Pred. No. 7.4e-30; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 129; DB 6;
llarity 100.0%; Pred. No. 7.4e-30;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
bases splitted
in 7 more sequences.
seq 0001: from 0.000.001 to
seq 1100: from 0.300.001 to
seq 1101: from 0.500.001 to
seq 1102: from 0.900.001 to
seq 1103: from 1.200.001 to
seq 1105: from 1.800.001 to
seq 1105: from 1.800.001 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 9 from Patent W002074798. AX553955.1 GI:25897908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           141571 AGTTCAGCG 141563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 AGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query'Match
Best Local Similarity
Matches 129; Conserv
                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                          Matches 129;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141691
                                                                                                                                                                                                                                                                                                             Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
AX553955/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
```

8 셤 ઠે 셤

```
/transl table=11
/product="hypothetical protein-putative conserved
hypothetical protein"
/product="hypothetical protein"
/product="hypothetical protein"
/db xref="di:3344617"
/db xref="di:334617"
/db xref="linterPro:IPR011481"
/db xref="linterPro:IPR011481"
/db xref="interPro:IPR011481"
/db xref="interProPARAGFSRYWRCT"
/complement(2478. .3281)
/locus_tag="RB10138"
/locus_tag="RB10138"
/locus_tag="RB10138"
/locus_tag="RB10138"
/locus_tag="RB10138"
/locus_tag="RB10138"
/locus_tag="RB10138"
/function="inner membrane organization"
/note="best DB hits: BLAST: pir:T34929; hypothetical
protein_sCiP9.07 SC3P9.07 - Streptomyces; E=0.018"
/codon start=1
/transl_table=11
/transl_table=11
/transl_table=11
/transl_table=11
/product="conserved hypothetical protein-putative membrane
lipoprotein"
/db xref="di:33446818"
/db xref="di:3446818"
/db xref="di:3446818"
/translation="MRLYDFFNAFPFLQRNSTSSALMSLVPAGCCLLNVGFESIAEA
/translation="MRLYDFNARPFLQRNSTSSALMSLVPAGCCLLNVGFESIAEA
/translation="MRLYDFNARPFLQRNSTSSALMSLVPAGGWNQYVVRTNTEWTGKPPTWFTSHGIRANGYTV
//db xref="di:3446818"
/translation="MRLYDFNARPFLQRNSTSSALMSLVPAGGWNQYVVRTNTEWTGKPPTWFTSHGIRANGYTV
/ranslation="MRLYDFNARSSMQPPPLSPDCSFPSEAFTTNPHGEWNQYYV
//db xref="di:3446818"
/translation="MRLYDFNARSSMQPPPLSPDCSFPSEAFTTNPHGEWNQYYV
/ranslation="MRLYDFNARSSMQPPLSPDCSFPSEAFTTNPHGEWNQYYV
//db xref="di:3446818"
/translation="MRLYDFNARSSMQPPLSPDCSFPSEAFTTNPHGEWNQYYV
//db xref="di:3446818"
/translation="MRLYDFNARSSMQPPLSPDCSFPSEAFTTNPHGEWNQYYV
//db xref="di:3446818"
/db xref="di:3446818"
/translation="MRLYDFNARSSMQPPLSPDCSFPSEAFTTNPHGEWNQYYV
//db xref="di:3446818"
/db xref="di
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                148951 rgacgroagccrrcgcarcgaaragrrcgaacgacgacgacgagaagacgacgagaagargrcaaga 148892
                                                                                  /db_xref="Uniprot/Trembl:Q7UFG1"
/translation="MLDRPIFGSTDLFTSDDLLDSLALKNQPWSKRRSVVILRDSKIR
PSGQFPLHPEPFSRHVCHLCRRWTPIPSRARNGTRRRLP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                            /translation="MLVLRNRSELSVGYSGAARAARCVTGGLAPNGTYFTPPQGGCEF
LRASPVTP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /translation="MRHKHDRMKIRGISKNPIDLPSRYRGRVLKPKKRRRSFRSFLRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 TGGTCGGGGTCTTTTGTTGTGGTGCTGTGTGTCTTGTCCAACCGTATTATTCCGGACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TGACCTICTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACGAGA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1; Length 295650;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /transl_table=11
/product="hypothetical protein"
/protein_id="CAD/8725.1"
/db_xref="G1:32446819"
/db_xref="Uniprot/TrEMBL:Q7UFF7"
                                                                                                                                                                                                                                                                                                                                                                                                                                 xref="UniProt/TrEMBL:Q7UFG0"
                                                                                                                                                                                                                                                                                                                                     /product="hypothetical protein"
/protein id="CAD78722.1"
/db_xref="GI:32446816"
/db_xref="UniProt/TrEMBL:07UFG0"
product="hypothetical protein"
protein_id="CAD78721.1"
db_xref="G1:32446815"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ch 25.3%; Score 32.6; Di
1 Similarity 53.5%; Pred. No. 24;
68; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Complement (2151. .2372)
/locus_tag="RB10137"
/locus_tag="RB10137"
/locus_tag="RB10137"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement (3382. .3621)
/locus_tag="RB10139"
complement (3382. .3621)
/locus_tag="RB10139"
/codon_start=1
/transI_table=11
                                                                                                                                                                                                /locus tag="RB10136"
2019. .2177
                                                                                                                                                                                                                                                           /locus_tag="RB10136"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /transT_table=11
                                                                                                                                                                                                                                                                                                                       table=11
                                                                                                                                                                                                                                                                                            /codon_start=1
/transT_table=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S:
Matches 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (1529. 1843)
/locus_tag="RB10134"
complement (15129. 1843)
/locus_tag="RB10134"
/complement (15129. 1843)
/locus_tag="RB10134"
/function="ribosomal proteins"
/function="ribosomal protein L21; E=4e-10 pir:FE2920;
ribosomal protein L21; E=4e-10 pir:FE2920;
ribosomal protein L21 (imported) - Ureaplasma;
E=3e-11 gb:AAC35614.1; (AF041468) ribosomal protein L21
[Guillardia, E=3e-10 COG: Rv2442c; COG0261 Ribosomal
protein L21; E=3e-07 PFAM: PF00829; Ribosomal prokaryotic
L21 prot; E=2.2e-36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db_xref="InterPro:IPR001787"
|/db_xref="UniProC/TrENBL:Q7UFG2"
|/translation="WXAIFVOGROYRVEPGMELDVDYRDIAAGENLKFETVLAVGAE
DGLKLGAPTLDGVSVSASVLGMSQDKKIYIQKFRRRKHSKKRTGHRQKNTRIRIEEIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KVFAGENFÄLLFEGHLÄTKAPTIASIVPDVPPELSQVIADCLEKSPDDRPFNARSVQG
VMIBIGEKYNLSAPPDSPVGPNHSETGNAPKDVSADSVTEKGRRLLEEQIHYRLGGTS
REPVSAGKVSLIVVAIIVLIVLAVSLSGGS"
        (http://www.biomax.de). All ORP predictions and annotations were manually corrected by considering all results of the different tools applied. See http://www.regx.de for more information and access to supplementary information.
                                                                                                                                                                                                         'organism="Rhodopirellula baltica SH 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_grart=1

transl_table=11

/product="50& ribosomal protein L21"

/protein_id="CAD78720.1"

db_xref="GI:32446814"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="genomic DNA"
/strain="1"
                                                                                                                                                                                                                                                                                               /db xref="taxon:243090"
                                                                                                                                                                                                                                                                                                  complement (414, .1508)
/gene="pknH"
/locus_taq="RB10132"
                                                                                                                                                                                                                                                                                                                                                                                                               complement (414. .1508)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              xref="GOA:Q7UFG2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tag="RB10133"
                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               number="2.7.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transI_table=11
                                                                                                                                                                        . .295650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                    FEATURES
```

а Š

```
/product="Mypothetical protein"
/product="Mypothetical protein"
/protein_id="CAD26151.1"
/db_xref="GAD26151.1"
/db_xref="InterPro:1916862"
/db_xref="InterPro:1918011004"
/db_xref="InterPro:1918632"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:1818011004"
/db_xref="InterPro:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="Uniproc/Swiss-Prot:08Sw84"
/translation="WKSISSYLSFAHMUTHTTEQHAENQPHWKTILDIAPFVSITFP
/translation="WKSISSYLSFAHMUTHTTEQHAENQPHWKTILDIAPFVSITFP
INCLIFUEDSFEESPPLISFTILLLEVSTILLYT
ISTLALIAFTIISILSIIPFSLANEWDHAASFFYPIVLPSFTVPPAYLLSSSYFLVPRQI
RLTDTVISILISVCSIVNVLLVPKEFNYYPYSAIISSISVLLQLLSEKHCLFKQSPPS
TASSRAAVLITLILAVLYTFLGYGAIYILDDHFHLLGKMKSILPSEPHQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="hypothetical protein"
/protein_id="CAD26150.1"
/db_xref="cd::19168611"
/db_xref="cd::19168611"
/tb_xref="uniProt/Swiss-Prot::Q8STE8"
/translation="wRPPVGGLLPYLALRSYAYICVFGDSSRAPDLIREAFESPHFKR
PDGAGTYKBAKGRCGMRFADVVNGAFGQISDMADKVGKGEPEVWCIWKKRGEVEMLLK
VKEYRKGYGSGKRRRR"
    /note="03_0020, unknown, gene found by Glimmer [Shorter 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="03_0060, unknown, gene found by Glimmer [Delay by 228 5 109 38]"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement (3222. .3578)
/gene="ECU03 0030"
complement (3222. .3578)
/gene="ECU03 0030"
/function="unknown"
/note="03 0030, unknown, gene found by Glimmer"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4169. .4975
/gene="BCU03_0040"
4169. .4975
/gene="BCU03_0040"
/function="unknown"
/note="03_0040, unknown, gene found by Glimmer"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5400. .6665 / function="ECU03_0050" / function="unknown" / function="unknown" / function="03_0050, unknown, gene found by Glimmer" / codon_start=1
                                                                                          /product="hypothetical protein"
/protein id="CAD26149.1"
/db_xref="G1:19168630"
/db_xref="UniProt/Swiss_bact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /product="hypothetical protein"
/protein_id="CAD26153.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6782. 7153
/gene="ECU03_060"
6782. 7153
/gene="ECU03_060"
/function="unknown"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
148891 TGTTGTCGTTGATTTGGCGGAGTTTCGGATGCAGTCCGAAAGAGCATTCTCTACCGAACT 148832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /function="unknown"
/note="03_0010, unknown, gene found by Glimmer [Bad Olap 2
                                                                                                                                                                                                                                                                                                                                                                      CNS07EGA 194439 bp DNA linear INV 16-APR-2005 chromosome III of strain GB-M1 of Encephalitozoon cuniculi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="UniProt/Swiss-Prot:Q8SW85"
/translation="MAAPTQLPETAXPKHSNQSEAGPAPLASPTAPMPRPASHLAPMP
SDHPDFRSKSARLRCQPPRTNNCGTFKQPPSVAATSRPKPGNPFLQPPTKGTPPPKKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (65-APR-2001) Genoscope - Centre National de Sequencage, 2 rue Gaston Cremieux, CP 5706, 91057 EVRY cedex, FRANCE. (B-mail : Geqrefégenoscope.cns.fr - Web : www.genoscope.cns.fr)
Corresponding author : Equipe de Parasitologie Moleculaire et cellulaire, UMR CNRS 6023, Universite Blaise Pascal 63177 Aubiere cedex, France B-mail : Christian.VIVARES@lbp.univ-bpclermont.fr Trel : (33) (0)4.73.40.74.57
Fax : (33) (0)4.73.40.74.57
Fax : (33) (0)4.73.40.74.57
Fax : (4)4.50.74.57
Fax : (5)50.74.57
Fax : (5)50.74.75.40.74.55
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.55
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.57
Fax : (5)50.74.75.40.74.75
Fax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KKNHTEGCHTHEANPEPNTKHTETEPPIISHCPPPHCGPTATPNLLPCENPTSSFCON
TRDSPSLPPORPNMVHIPETPLORRHSPSQIPIRIPPSPYNLSTAKTYYYLQPPYLPI
LSHEIHFIVPLLCPYEHHTHNRAARREPATLENNPRHRSIRLNYIPSHVPHLRRRQF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Encephalitozoon cuniculi GB-M1
Encephalitozoon cuniculi GB-M1
Encephalitozoon cuniculi GB-M1
Encephalitozoon cuniculi GB-M1
Encephalitozoon cuniculi GB-M1
I (bases 1 to 19443)
Extinka, M.D., Duprat, S., Cornillot, E., Metenier, G., Thomarat, F., Delbac, F., El Alaoui, H., Peyretaillade, E., Brottier, P., Wincker, P., Welssenbach, J. and vivares, C.P.
Genome sequence and gene compaction of the eukaryote parasite Nature 414 (6862), 450-453 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AIDS opportunistic pathogen; Genome sequence; intracellular parasite.

    .194439
/organism="Encephalitozoon cuniculi GB-M1"
/mol_type="genomic DNA"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product="hypothetical protein"
/protein_id="CAD26148.1"
/db_xref="GI:19168629"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / Brzaln="GB="III"

/db_xref="texon:284813"

/chromosome="III"

550. .1380

/gene="ECU03_0010"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                550. .1380 _
/gene="ECU03_0010"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="ECU03_0020"
1211. .2020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALS90443.1 GI:13560062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 194439)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
                                                                                                                                                           148831 GTTTCGG 148825
                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Microspora).
                                                                                  121 AGTTCAG 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL590443
                                                                                                                                                                                                                                                                                                                               CNS07EGA/c
                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                      Locus
```

```
127621 TCATCAGGATCTCTTCTTGGTTCTGGTCGGCAATGT 127586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gikuchi, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           from japonica rice
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12869764
                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                       RESULT 8
                                                                                                                                  AK119844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gunction="unknown"
/codon_start=1
/codon_start=1
/product="hypochetical protein"
/protein id="CAD26156.1"
/protein id="CAD26156.1"
/protein id="CAD26156.1"
/protein id="CAD26156.1"
/db_xref="Uniprot.Kaiss-Prot.:Q88W78"
/translation="WGBCPFOTWRWHIVSAIALVDILCTSKIBELVENMGKKIBEALP
/translation="WGBCPFOTWRWHIVSAIALVDILCTSKIBELWRWGKKIBEALP
/translation="WGBCPFOTWRWHIVPCIFHEDRUVASPTTRYQDIDEEEKGYVEKV
IALLPRLIAMSVAYIIVFGQNDSWVWIMEBEVFETAPFKKSDAYALYKRAGKIGIKLI
DLVNRTFRHNIGMLNRFGQRLAQEABAKIQEISSSYNDAVGGVEREKALGIRLI
CTKEKGGEBIRAGGAERCDACACIUMEDSUFESFWMETYSRHLIKMIGSSDVDSEELL
SYIDHRGILDAYEKYKSIDIVAELIKQVFTREKGISDSSVNDAVGGVEREREAREKRG
SYLDHRGILDAYEKYKSIDIVAELIKQVFTREKGISDSSVNDAVGGVEREREAREKRG
EEERRKKEEESLRNTLELLANDEEKEKSKSRGKKKKGGKKGGSGVTAKMEEEKKDSEEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  127681 TGACCTTGTGCGTGTCGACATACATGTTTGCATCGTTGACAATGTGCCCCGTTCTTGA 127622
                                                                                                                                                                                                                                                                                    742 99]"

7codon start=1

/producft="hypothetical protein"

/protein id="CAD26154.1"

/db_xxef="G1:19168635"

/db_xxef="Uniprot/TEMBL:Q8SW80"

/translation="WIERRERTVLYFQLWMANAMTERMEMTANVWKRALEKYRSILCM
APSGLVLSFQLARNRRTIGNAIDMNTARSLGIVPPPIIELVLGVLLCCVCGVHAGKGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /function="unknown"
/note="03_0080, unknown, gene found by Glimmer [Bad Olap 7
242 0]"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product = "hypothetical protein"
/product = "hypothetical protein"
/protein id="CAD26155.1"
/brotein id="CAD26155.1"
/brotein id="CAD26155.1"
/branslation="morot/Swiss-Prot:QBSW79"
/cranslation="morot/Swiss-Prot:QBSW79"
/cranslation="morodyTPRDLAVPWSIAPPWYLLFRASWKESTKPEGAIHKILRY
FSSALFITFAVISILSVIAFAIHNWKNNTVSLSLSIIFPSLLFPPPYLLSYSCCLVPG
GGGTPDTGINILIDILILVHPWANLVSVRRPYRYPHSAIISSIFLIIFTPDNLNNG
ATAFCSGLSPPYLDLQPIFSVLSASRQHHIFAFLLALACPIMGLIPMIKDSSTIPISR
LPLLPSF"
     /db_xref="G1:19168634"
/db_xref="UniProt/TremBL:08SW81"
/translation="MCGQRLIQCGMSWKQMCVFCAGHVLLAVACFAEPSKHPLLDTYG
RCGMVCIGLTVLIALLLLVSYMDEADGBKASASGSGAVVMNCLFVMSVAVTTFASWVS
SRDYFMTCRRGTDDMTGTAAS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EESAEAEVSIBEMAVGGARSKERSSKKKSRSKCHRYKVHKRVLRWTKSAERIKAELDE
GSEEKWRNKSIBEIBEOKKVHDIIBVCVLLRSLDANRPFVSTYRYMKDCTERWKMVGV
GIPEEGGEKKVGKVEVGLYRDKGEGSVIYHLMPKAMDTEKAGKGARSSFGKGDDVEGL
                                                                                                                                                                                                                               /function="unknown"
/note="03_0070, unknown, gene found by Glimmer (Shorter 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EEGAGELSDMSGFEYPKGVRSEIVKGGDAFKIVYRNPKDTSEVLRSLTVLQKAEVL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   í,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.8%; Score 32; DB 2; Length 194439; 58.3%; Pred. No. 37; ive 0; Mismatches 40; Indels 0;
                                                                                                                               /gene="ECU03_0070"
complement(7642. .7953)
/gene="ECU03_0070"
/function="ECU03_0070"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement (8576. .10444)
/gene="ECU03_0090"
complement (8576. .10444)
/gene="ECU03_0090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="ECU03_0100"
11401. .12966
/gene="ECU03_0100"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="ECU03_0080"
7712. .8389
/gene="ECU03_0080"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7112. .8389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 58.3'
Matches 56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                                                                                                                                       9
```

61 TGGTCGGGGTCTTTTTGTGTGGTGCTGTGACGTGT 96

쉽 ઠે

ઠે

```
The Rice Pull-Length CDNA Consortium, National Institute of Agrobiological Sciences Rice Full-Length CDNA Project Team:, Kikuchi, S., Satch, K., Nagatea, T., Kawagashira, N., Doi, K., Kishimoto, N., Yazaki, J., Ishikawa, M., Yamada, H., Ooka, H., Hotta, I., Kishimoto, N., Yazaki, T., Ishikawa, M., Yamada, H., Ooka, H., Hotta, I., Kojima, K., Namiki, T., Poundation of Advancement of International Science Genome Sequencing & Analysis Group:, Otomo, Y., Murakami, K., Iida, Y., Sugano, S., Fujimura, T., Suzuki, Y., Tsunoda, Y., Murakami, K., Ishibaki, J., Masuda, H., Kobayashi, M., Xie, Q., Lu, M., Narikawa, R., Sugiyama, A., Mizuno, K., Yokomizo, S., Niikura, J., Ikeda, R., Ishibiki, J., Kawamata, M., Yoshimura, A., Mura, J., Kawai, J., Carninoi, P., Adachi, J., Aizawa, K., Arakawa, T., Fukuda, S., Hara, A., Hashidume, W., Hayatsu, M., Imotani, K., Ishii, Y., Ich, M., Saito, R., Saato, R., Sahaku, T., Satkawa, T., Sato, R., Sato, R., Shibata, K., Shinagawa, A., Shiraki, T., Yoshino, M. and Hayashizaki, Y., Shibata, K., Shinagawa, A., Shiraki, T., Saito, R., Sana, Saito, R., Sato, R., Shibata, K., Shinagawa, A., Shiraki, T., Saito, R., Sato, R., Shinagawa, A., Shiraki, T., Shinada, A., Shiraki, J., Sato, R., Shinaga, Shiraki, Sato, R., Sato, R., Shinagawa, A., Shiraki, T., Shinada, A., Shiraki, Sato, R., Sato, R., Shinagawa, Shiraki, Y., Sato, R., Sato, R., Shinagawa, Shiraki, Sato, R., Sato, R., Shinagawa, Shiraki, Sato, R., Sato, R., Sato, R., Shiraki, Y., Shinagawa, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Sato, R., Sato, R., Sato, R., Sato, R., Sato, R., Sato, R., Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, Shiraki, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Adachi, J., Aizawa, K., Akimura, T., Arakawa, T., Carninci, P., Doi, K., Fujimura, T., Fukuda, S., Hanagaki, T., Hara, A., Hashizume, W., Hayashidak, K., Hayashidaki, Y., Hayashidaki, Y., Hayashidaki, Y., Hayashidaki, Y., Hayashidaki, Y., Hayashidaki, Y., Hidahoto, K., Hiraoka, T., Hori, F., Hotta, I., Iida, Y., Ikeda, R., Imamura, K., Kanagashira, N., Kawai, J., Kawamata, M., Kanagashira, N., Kawai, J., Kawamata, M., Kanagashira, N., Kawai, J., Kawamata, M., Katichi, S., Kishikawa-Hirozane, T., Kishimoco, N., Kobayashi, M., Kodama, T., Kojima, K., Kojima, Y., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Kodama, T., Kojima, Y., Kojima, Y., Murakami, K., Matsuyama, T., Murakami, K., Matsuyama, T., Midra, J., Miyazaki, A., Mizuno, K., Murakami, K., Matsuyama, T., Makahama, Y., Numasaki, T., Narikawa, R., Ohio, M., Ohtsuki, K., Oaka, H., Osaco, M., Ota, Y., Otomo, Y., Ryu, R., Satcoh, H., Sakai, C., Sakai, K., Shinasaki, R., Shinasaki, D., Sato, K., Satoh, K., Shinasaki, T., Kawana, M., Shiraki, T., Sagabe, Y., Sugami, M., Tagami-Takeda, Y., Tagawa, A., Shiraki, Y., Tagami, M., Tagami, M., Yahagi, W., Yamada, H., Yamamoto, M., Yabaqi, W., Yanagi, W., Yamada, H., Yamamoto, M., Yasunishi, A., Yazaki, J., Yookomizo, S., and Yoshimura, A., Yanada, H., Yasunishi, A., Yasunishi, A., Yazaki, J., Yookomizo, S., and Yoshimura, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., Yasunishi, A., 
AK119844 3048 bp mRNA linear PLN 29-OCT-2003 Oryza sativa (japonica cultivar-group) cDNA clone:002-178-D02, full insert sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (317An-2003) Shoshi Kikuchi, National Institute of Agrobiological Sciences, Department of Molecular Genetics, Head of Laboratory of Gene Expression; 2-1-2 Kannondai, Taukuba, Ibaraki 1205-8602, Japan (E-mail:skikuchi@nias.affrc.go.jp, Tel. 191-29-838-7007, Pass.81-29-838-7007, Tel. 191-29-838-7007, Pass.81-29-838-7007, Pass.81-29-838-7007)
                                                                                                                                                                                                                                                                                                                                             AK119844.1 GI:37989467
CLI_CDNA, oligo capping.
Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Sukaryota, Viffdiplantee; Streptophyra; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Science 301 (5631), 376-379 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
```

```
Direct Submission

Submitted (20-MAR-2004) Center for Integrated Fungal Research,
North Carolina State University, Plant Pathology - 840 Main Campus
Dr. Raleigh, NC 27606, USA
On Mar 20, 2004 this sequence version replaced gi:27552536.

* NOTE: This is a "working draft" sequence. It currently
consists of 1 contigs. Gaps between the contigs
are represented as runs of N. The order of the places
is believed to be correct as given, however the sizes
of the gaps between them are based on estimates that have
provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88659 chricegerichteagecriceardaacearachtearacaagrichteaagardrerr 88600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HTG 20-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (09-JAN-2003) Plant Pathology - Fungal Genomics
Laboratory, North carolina State University, 840 Main Campus Drive,
Raleigh, NC 27606, USA
3 (bases 1 to 92770)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (20-MAR-2004) Center for Integrated Fungal Research, North Carolina State University, Plant Pathology - 840 Main Campus Dr, Raleigh, NC 27606, USA On Mar 20, 2004 this sequence version replaced gi:27552538.

* NOTE: This is a 'working draft' sequence. It currently * consists of 1 contigs. Gaps between the contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Thon, M.R., Mitchell, T., Brown, D.B., Diener, S., Taro, A., Pan, H. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Thon, M.R., Mitchell, T., Brown, D.E., Diener, S., Taro, A., Pan, H. and
                      hon, M.R., Mitchell, T., Brown, D.E., Diener, S., Taro, A., Pan, H. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACI38544 92770 bp DNA linear HTG 20-MAR-
Magnaporthe grisea chromosome 7 clone 15G13, *** SEQUENCING IN
PROGRESS ***.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bukaryota, Fungi, Ascomycota, Pezizomycotina, Sordariomycetes,
Sordariomycetes incertae sedis, Magnaporthaceae, Magnaporthe.

    (bases 1 to 92770)

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Сарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88599 CTTGGGCGTTCGTTCGTGCTTCGGTTGGTGCATCCATGCGCGGAAGTCCTG 88547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65 CGGGGTCTTTTTGTTGTGGTGCTGTGTTGTTCCCAACCGTATTATTCCGG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 14; Length 90417;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (bases 1 to 92770)
Dean,R.A. Dr, Mitchell,T. Dr, Thon,M. Dr and Brown,D.E.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches 51; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AC138544.2 G1:45597492
HTG; HTGS PHABEZ
Magnaporthe grisea (anamorph: Pyricularia grisea)
Magnaporthe grisea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence of Magnaporthe grisea chromosome 7
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Magnaporthe grisea"
/mol_type="genomic DNA"
/db_xef="texon:148305"
/chromosome="7"
/clone="12G19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24.3%; Score 31.4; I
54.9%; Pred. No. 58;
(bases 1 to 90417)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dean, R.A.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 62; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dean, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
AC138544/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
REFERENCE
AUTHORS
                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
           URL: http://cdnaol.dna.affrc.go.jp/cDNA/
NIAS Rice Full-Length cDNA Project Team: Kikuchi.S., Satoh.K.,
Nagata.T., KawagaaBira.N., Doi,K., Kibhimoto,N., Yazaki,J.,
Ishikawa,M., Yamada.H., Ooka.H., Holta.I. Kojina,K., Namiki,T.,
Ohneda,E., Yahagi,W., Suzuki,K., Li,C., Ohtsuki,K., Shishiki,T.,
Yamamoto,M. and Nakahama,Y.
FAIS Genome Sequencing & Analysis Group: Otomo,Y., Iida,Y.,
FAIS Genome Sequencing & Analysis Group: Otomo,Y., Iida,Y.,
FAIS Genome Sequencing & Analysis Group: Otomo,Y., Iida,Y.,
Rusunai,H., Miura,J., Mizuno,K., Narikawa,R., Nikura,J., Oda,M.,
Kobayaahi,M., Kodama,T., Kurosaki,T., Kusumegi,T., Lu,M.,
Ryu,R., Sugano,S., Sugiyama,A., Suzuki,Y., Tsunoda,Y., Ueda,M.,
Xie,Q., Yokominzo,S., Yoshimura,A., Matsubaza,K. and Murakami,K.
Genome Exploration Research Group in Riken Genomic Science Laboratory in Riken Adachi,J., Aizawa,K.,
Arakawa,T., Carninci,P., Fukuda,S., Hangaki,T.,
Hara,A., Hashizume,W., Hayashida,K., Hayatsu,J.,
Hara,A., Hashizume,W., Hayashida,K., Mayata,J.,
Kishikawa-Hirozame,T., Kanagawa,S., Katoh,H., Kawai,J.,
Koya,S., Kurihara,C., Matuyama,T., Miyazaki,A., Murata,M.,
Nakamura,M., Nishi,K., Nomura,K., Numasaki,R., Ohno,M., Osato,N.,
Ota,Y., Saitoh,H., Sasaki,C., Sakai,K.,
Sakazume,N., Sano,H., Sasaki,C., Sakai,K.,
Tagami-Takeda,Y., Tagawa,A., Takahashi,F.,
Takaku-Akahira,S., Tanaka,T., Towa,T., Waki,K.,
Yasunishi,A. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACL38542 90417 bp DNA linear HTG 20-MAR-2004 Magnaporthe grisea chromosome 7 clone 12G19, *** SEQUENCING IN PROGRESS ***.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 (bases I to 90417)
Dean,R.A. Dr, Mitchell,T. Dr, Thon,M. Dr and Brown,D.E.
Direct Submission
Submitted (09-JAN-2003) Plant Pathology - Fungal Genomics
Laboratory, North carolina State University, 840 Main Campus Drive,
Raleigh, NC 27606, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
Sordariomyetes; incertae sedis; Magnaporthaceae; Magnaporthe.
1 (bases 1 to 90417)
Thon,M.R., Mitchell,T., Brown,D.E., Diener,S., Taro,A., Pan,H. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  506 AGTTATCACAGCATGCTCTCTGCACCCCCGACCACCGACGACGCTGCTTCCAGCTGTT 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16 AGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACGAGATGGTCGGGGGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Oryza sativa (japonica cultivar-group)"
/mol type="mRNA"
/mol type="mRNA"
/cultivar="Nipponbare"
/db x=taxon: 39947"
/clone="002-178-D02"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 3048;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACI38542.2 GI:45597487
HTG; HTGS PHASE2.
Magnaporthe grisea (anamorph: Pyricularia grisea)
Magnaporthe grisea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The sequence of Magnaporthe grisea chromosome 7
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 31.8; DB 15;
Pred. No. 44;
0; Mismatches 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 TGTTGTGGTGCTGTGACGTGTTG 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 24.7%;
Best Local Similarity 61.4%;
Matches 51; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . .3048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dean, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC138542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
AC138542/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
```

8 a ઠે 셤

```
misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia; Mammalia; Bovidae; Bovinae; Bos.

B Pecora; Bovidae; Bos.

1 (bases 1 to 128428)

Blakesley, R.W., Buckstrom-Sternberg, S.M., Benjamin, B., Chu, G., Coleman, B., Coleman, H., Engle, J., Granite, S., Guan, X., Gupt, J., Hagnighi, P., Han, J., Hansen, N., Ho, S.-L., Hu, P., Lagapi, R., Maduro, Q.L., Maduro, V.B., Margulies, E.H., Masiello, C., Maskeri, B., McDowell, J., Paquirigan, C., Pearson, R., Portnoy, M.E., Prasad, A., Reddix-Dugue, N., Schandler, K., Schueler, M.G., Shah, K., Sison, C., Stantripop, S., Thomas, J.W., Thomas, P.J., Tsipouri, V., Vogt, J.L., Wetherby, K.D., Waggins, L., Young, A. and Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AC144889 128428 bp DNA linear HTG 11-JUN-2003
Bos taurus clone RP42-541E10, WORKING DRAFT SEQUENCE, 6 ordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 CTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACCGGAGATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   crirccegricercagecricearcearacearactecaraceagercercaagegeer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (23-MAY-2003) NIH Intramural Sequencing Center, 8717 Grovemont Circle, Gaithersburg, MD 20877, USA 3 (bases 1 to 128428)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (11-JUN-2003) NIH Intramural Sequencing Center, 8717 Grovemont Circle, Gaithersburg, MD 20877, USA On Jun 11, 2003 this sequence version replaced gi:31044309.
                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                  is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor.
This sequence will be replaced by the finished sequence as soon as it is available and the accessor number will be preserved.

1 92770: contig of 92770 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         crresecericericererrererresiscaricearececasasicere
                                                                                                                                                                                                                                                                                                                                                                                Length 92770;
are represented as runs of N. The order of the pieces
                                                                                                                                                                                                                                                                                                                                                                                                                          51; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----- Genome Center
Center: NIH Intramural Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                  DB 14;
                                                                                                                                                                                               1. .92770
/organism="Magnaporthe grisea"
/mol_type="genomic DNA"
/db_xref="taxon:148305"
/chromosome="7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              / Match 24.3%; Score 31.4; DE Local Similarity 54.9%; Pred. No. 58; nes 62; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC144889.2 GI:31581601
HTG; HTGS PHASE2; HTGS DRAFT.
Bos taurus (cow)
                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center code: NISC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 128428)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Green, B.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AC144889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     leces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           408
                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC144889
                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

```
Center project name: cey
Center clone name: 541E10
```

The sequence data in this record represents an 'enhanced' version of a Phase 2 submission. Specifically, the indicated order and orientation of each sequence contigh has been established using one or more of the following: read-pair data from individual subclones, overlaps with neighboring clones, alignment with available reference sequence (e.g., human). and/or confirmation by Por testing. In addition, the sequence assembly is based on at least 8X average coverage in Q20 bases and has been reviewed to rule out gross misasseemblies, the low-quality ends of sequence contigs have been trimmed away, and each base is associated with a Phrap-derived quality score.

Sequencing vector: plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0.990319

Consensus quality: 127382 bases at least Q20

Insert size: 130000; agarose fp

Insert size: 130000; agarose fp

Insert size: 127928; sum-of-contigs

Quality coverage: 10.65x in Q20 bases; sum-of-contigs

* NOTE: This is a 'working draft' sequence. It currently consists of 6 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor:

* This sequence will be replaced.

* This sequence as soon as it is available and the accession number will be preserved.

* 1 33969: contig of 19291 bp in length 34070 53360: contig of 19291 bp in length 53361 contig of 19291 bp in length 63540 63539: contig of 10079 bp in length 63540 63639: gap of unknown length 63540 63639: gap of unknown length 63640 112600: contig of 10079 bp in length 63640 112700: gap of unknown length 63640 112700: gap of unknown length 63640 112400: gap of unknown length 63640 112400: contig of 6044 bp in length 118745 118844: gap of unknown length 118745 118844: gap of unknown length 118745 118843: contig of 5584 bp in length.

/mol_type="genomic_DNA" /db_xref="taxon:9913" /clone="RP42-541E10" /clone_llb="RP42" organism="Bos taurus" Location/Qualifiers 1. .128428

/note="clone overlaps with GenBank Accession Number AC095020 clone RP42-243E1 (center project name cje)" 1. .33969 /note="assembly_fragment 1. .48703

vector gide:left"
33970. .34669
4estimated length=unknown
34070. .53360
/note="assembly_fragment" clone_end:T

/estimated_length=unknown 63640. .112600 /note="assembly_fragment"

```
Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     111483 CTCCCCGTTTGCCTCCCCTCGGCCCTCAGCTCCAGAGCCTCCACCTGCCTCTCCCA 111542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                111543 GGCCTTGTTGTTGTTGTTGCTAAGTCCAACTCTGTGACCCCGGTGGACTTGCAG 111602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Akhter N., Antonellis, A., Ayele, K., Becketrom-Sternberg, S.M., Benjamin, B., Blakesley, R.W., Bouffard, G.G., Breen, K., Brinkley, C., Brooks, S., Dietrich, N.L., Granite, S., Guan, X., Gupta, J., Hansen, N., Ho, S.-L., Idol, J.C., Karlins, E., Laric, P., Lee-Lin, S.-Q., Legaspi, R., Maduro, Q.L., Maduro, V.B., Margulies, E.H., Masiello, C., Maskeri, B., Mastrian, S.D., McCloskey, J.C., McDowell, J., Paguirigan, C., Pearson, R., Portnoy, M.E., Prasad, A., Schueler, M.G., Stantripop, S., Thomas, J.W., Thomas, P.J., Touchman, J.W., Teurgeon, C., Vogt, J.L., Walker, M.A., Wetherby, K.D., Wiggins, L., Young, A., Zhang, L.-H. and Green, E.D., NISC, Comparative Sequencing Initiative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AC093397 207821 bp DNA linear HTG 19-NOV-2002 Bos taurus clone RP42-405D15, WORKING DRAFT SEQUENCE, 10 ordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    68 GGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACTAGTTCAG 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
Pecora; Bovidae; Bovinae; Bos.
1 (bases 1 to 207821)
72761. .128428
/nocte="clone overlaps with GenBank Accession Number
AC093397 clone RP42-405D15 (center project name cja)"
112601. .112700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (19-NOV-2002) NIH Intramural Sequencing Center, 8717 Grovemont Circle, Gaithersburg, MD 20877, USA
On Jun 19, 2002 this sequence version replaced gi:15277346.

Center: NIH Intramural Sequencing Center
Center: NIH Intramural Sequencing Center
Center code: NISC
Web site: http://www.nisc.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (22-AUG-2001) NIH Intramural Sequencing Center, 8717
Grovemont Circle, Gaithersburg, MD 20877, USA
3 (Dases 1 to 207821)
                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                             Length 128428;
                                                                                                                                                                                                                                                                                                                                                                                                          56; Indels
                                                                                                                                                                                                                                                                                                                                                             DB 14;
                                                                                                                                                                                                                                                                                                                                                             Score 31.4; DB
Pred. No. 58;
0; Mismatches
                                                                                           /estimated_length=unknown
112701. .118744
/note="assembly_fragment"
118745. .118844
/estimated_length=unknown
118845. .128428
/note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HTG; HTGS PHASE2; HTGS DRAFT.
Bos taurus (cow)
                                                                                                                                                                                                                                                               clone_end:SP6 __
vector_side:right"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC093397.2 GI:21465397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 207821)
                                                                                                                                                                                                                                                                                                                                                        ch 24.3%;
1 Similarity 53.7%;
65; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rect Submission
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               111603 ¢ 111603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Green, E.D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC093397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128 C 128
                                                                                                                      misc_feature
                                                                                                                                                                                                                  misc_feature
       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
AC093397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                      gap
                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                            gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                              ORIGIN
```

셤 ð 셤 ઠે

```
The sequence data in this record represents an 'enhanced' version of a Phase 2 submission. Specifically, the indicated order and orientation of each sequence contign has been established using one or more of the following: read-pair data from individual subclones, overlaps with neighboring clones, alignment with available reference sequence (e.g., human), and/or confirmation by PCR testing. In addition, the sequence assembly is based on at least 8X average coverage in Q20 bases and has been reviewed to rule out gross misassemblies, the low-quality ends of sequence contigs have been trimmed away, and each base is associated with a Phrap-derived quality score.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      **NOTE: This is a 'working draft' sequence. It currently consists of 10 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor.

This sequence will be preserved.

This sequence will be preserved.

1 22661: contig of 22641 bp in length 22762 45605: contig of 22644 bp in length 45706 45705: gap of unknown length 45706 64208: contig of 6126 bp in length 45706 64208: contig of 6126 bp in length 64209 70534: contig of 6126 bp in length 70535 123863: contig of 6126 bp in length 70535 123863: contig of 6126 bp in length 70535 123863: contig of 6126 bp in length 70535 123863: contig of 6126 bp in length 70535 123863: contig of 6126 bp in length 70535 123863: contig of 6126 bp in length 70535 123863: contig of 6126 bp in length 70535 123863: contig of 6126 bp in length 70535 123963: gap of unknown length 70535 123863: contig of 18149 bp in length 70535 123883: contig of 18149 bp in length 70538 153883: contig of 18149 bp in length 70538 153883: contig of 9142 bp in length 70539 153993: gap of unknown length 70538 153893: contig of 9142 bp in length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 70539 153993: gap of unknown length 7053993 153993 153993 153993 153993 153993 153993 153993 153993 153993 153993 153993 153993 153993 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequencing vector: plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0.990119
Consensus quality: 206824 bases at least Q40
Consensus quality: 206436 bases at least Q20
Insert size: 161000; agarose-fp
Insert size: 206921; sum-of-contigs
Quality coverage: 11.74% in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181367: Contig of 19438 bp in length
181467: gap of unknown length
207821: contig of 26354 bp in length.
Contact: nisc_zoo@nhgri.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /estimated length=unknown
22762. 45605
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .22661
/note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="genomic DNA"
/db_xref="taxon:9913"
/clone="RP42-405D15"
/clone_llb="RP42"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .207821
/organism="Bos taurus"
                                                                                            Center project name: cja
Center clone name: 405D15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vector_side:left"
22662._.22761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45606. .45705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  clone_end:SP6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
```

```
ALIIGDNI YHGPGISTMLQKAAKKEKGATVEGYQVKDPERFGVVEPDTDWNAISIEEK
PEYPRSNYAVTGIYEYDNDVVEIAKQIKBAKGELEITDVNKAYLMRGDLSVEEKGE
FAWLDTGTHESLLEASQYIETVQRMQNVQVANLEEISYRMGYISREDVLELAQPLKKN
EYGRYLLRLIGEA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / LTAINSTACT OF HINKLIMIV FGTR PEALKMCPLVNELKKHEDMETIVCVTGQHKENV SPVLDLFGVVPDVDLEIMKANQTLFSITTSILEKIKPVLEKEQPDIVLIHGOTTTTVA AALAAFYLGIKVGHVBAGIRFYNLGSFPREFNRQSTSIITATYHFAPTELAKENLLKE GRENVYVTGHTVIDALTTTVOGDSTHTHLDLIANNRLILLTAHRENLGEPRHMFRA VKRVLNESYEDVKVI YPHKNPLVREFTAAEIFGOTER LQIIBPLDVLDFHNFWNGSYNI LTDSGGGVQEEAPSLGKPVLVMRDTTERPEGVAAGTLKLVGTDEETIYQNFKLLLDDSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /translation="gkfifmikesfdmirvginlmlsbliassliigivrlgiqmmmi
etfokvsltlsvsnllmtfinaiglvyfplirrtkablaftytysnlrmtlmlimfail
litypektivldlmferdadlifmtilfpmsvyggmalvintylkalrmerdilryn
alvmlismgytlytyllmsleltyvsivvllalrsiiabliiskkldvsvkkoivle
flltlvfissswylpiglavivytiayglyvliktylmtytknskktdvsvkkoivle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="WKGIIIAGGSGTRLYPLTRAASKOLMPVYDKPMIYYPLSTLMLA
GIKDILIISTPQDLPRFKDLLLDGSEFGIKLSYAEQPSPDGLAQAFLIGEEFIGDDSV
                                                                            10464207
2 (Dases 1 to 5832)
2 Obsecs 1. To 5832)
Direct Submission
Submitted (10-NOV-1998) Molecular Microbiology Unit, Women's and
Children's Hospital, 72 King William Rd, Adelaide, SA 5006,
Morona, J.K., Morona, R. and Paton, J.C.
Comparative genetics of capsular polysaccharide biosynthesis in
Streptococcus pneumoniae types belonging to serogroup 19
J. Bacteriol. 181 (17), 5355-5364 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         producE="glucose-1-phosphate thymidylyl transferase"
/protein_id="AAD19913.1"
/db_xref="G1:4406249"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="UDD-N-acetyl glucosamine-2-epimerase"/protein_id="AAD19912.1"/db_xref="GI:4406248"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /transl_table=11
/product="putative oligosaccharide repeat unit

    .5832
        /organism="Streptococcus pneumoniae" /mol type="genomic DNA"
        /strain="19A2"
        strain="19A2"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EYKKKASQASNPYGNGDASQQIVQILRGI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /protein_id="AAD19911.1"
/db_xref="GI:4406247"
                                                                                                                                                                                                                                                                                                                /serotype="19A"
/db_xref="taxon:1313"
/note="serogroup: 19"
                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="Cps19AL"
/codon_start=1
/trans1_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   883. .1971
/gene="cps19AK"
883. .1971
/gene="cps19AK"
/note="cps19AK"
/codon_start=1
/trans1_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="cps19AL"
2134. 3003
/gene="cps19AL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3004. .3597
/gene="cps19AM"
/note="Cps19AM"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3004. .3597
/gene="cps19AM"
                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="cps19AJ"
/note="Cps19AJ"
                                                                                                                                                                                                                                                                                                                                                                                                   /gene="cps19AJ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /codon_start=3
/transl_table=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             transporter"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2134. .3003
                                                                                                                                                                                                                                                                                                                                                                                  .818
                                                                                                                                                                                                                                                                                                                                                                                                                     .818
                                                                                                                                                                                                     Australia
                                                                                                                                                                                                                                               source
    AUTHORS
TITLE
                                                                                  PUBMED
REFERENCE
                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                           JOURNAL
                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COS
                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Streptococcus pneumoniae type 19A putative oligosaccharide repeat unit transporter (cps19AL) gene, partial cds; UDP-N-acetyl glucosamine-2-epimerase (cps19AK), glucose-1-phosphate thymidylyl transferase (cps19AK), dTDP-4-keto-6-deoxyglucose-3; 5-epimerase (cps19AM), dTDP-4-keto-6-deoxyglucose-3; 5-epimerase (cps19AM), dTDP-L-rhamnose synthase (cps19AO) genes, complete cds; and AliA AP105113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACTAGTTCAG 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     175822. .207821
/note="clone overlaps with GenBank Accession Number
AC120515 clone RP42-98H15 (center project name dje)"
181368. .181467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 24.3%; Score 31.4; DB 14; Length 207821; Best Local Similarity 53.7%; Pred. No. 57; Matches 65; Conservative 0; Mismatches 56; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Streptococcus pneumoniae
Streptococcus pneumoniae
Bacteria, Firmicutes, Lactobacillales, Streptococcaceae,
                                                                                                                                                                                                                    /estimated length=unknown
45706. .64208
/note="assembly_fragment"
64209. .64308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /estimated length=unknown
181468. .207821
                                                                                  /estimated_length=unknown
64309. .70434
/note="assembly_fragment"
                                                                                                                                                              /estimated_length=unknown
70535. .123863
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vector side:right"
                                                                                                                                              70435. .70534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AF105113.1 GI:4406246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     end: T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 5832)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Streptococcus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C 38469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      128 C 128
                              misc_feature
                                                                                                         misc feature
                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  38349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             38469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AF105113
LOCUS
                                                                      gap
                                                                                                                                                  gap
                                                                                                                                                                                                                              gap
                                                                                                                                                                                                                                                                                                          gap
                                                                                                                                                                                                                                                                                                                                                                                      gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
```

윱

ઠ 용

ઠે 쉱 ઠ

```
Streptococcus.

1 (bases 1 to 18617)
Bentley, S.D., Aanensen, D., Mavroidi, A., Saunders, D.,
Bentley, S.D., Aanensen, D., Mavroidi, A., Saunders, D.,
Rabbinowitsch, B., Collins, M., Donaghue, K., Harris, D., Kaltoft, M.S.,
Rabbinowitsch, B., Collins, M., Samual, G., Skoveted, I.C., Barrell, B.G.,
Revers, P., Parkhill, J. and Spratt, B.G.
Genetic analysis of the capsular biosynthetic locus from all 90
Berotypes of Streptococcus pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission (19-10)

Bentley, S.D.

Direct Submission (19-10)

Submitted (19-10)

Sequencing Unit, Sanger Institute, Wellcome Trust Genome Campus, Hinxton, Cambridge CB10 18A, E-mail: schooler ac.uk

NOTE: This sequence was generated from a PCR product representing the region from dexB to allA and is not necessarily responsible for the expressed capsule serotype. For a detailed description of how cost products were predicted see the associated publication.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="merrykerrokykrrynvlliylllvcfllflirkvillap
Rylmlvvtalvllvalvgllliykkaekftifllvpsilvssvslfavgqpvgltnr
Linatsnysbrysistavaladsetenvyolmsvtaptgydnen roklladiksgontdlt
Vrossylaayksliaffataivkrytkiitereppaskirktytkgfykvapap
Kyrskoospniyvsgliaffatssvskenvilmtynrdykrilltytprdayvpladg
Gnnokoklihagiygvbssihtlenlygvdinnyyvrlnptsplkkiidliggvdvyndo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /translation="ANEEQDLTVEGKVKSVLIENTLAQEVFEKQILVPWDAFCVEMTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'producE="integral membrane regulatory protein Wzg"
'protein id="CA133623.1"
'db xref="GI:68643361"
                                                                                                                                      Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /locus_tag="SPC19A_0003"
/note="member of homology group 0000 90"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /locus tag="SPC19A 0002"
/note="member of homology group 0017 25
member of homology group 0017 25"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'codon start=1
/transl_table=11
/product="putative IS1202 transposase"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Streptococcus pneumoniae"
/mol_type="genomic DNA"
/strain="Nr. 141/68"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /locus_tag="SPC19A_0001"
/codon_start=2
/transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /transl_table=11
/protein_id="CAI33621.1"
/db_xref="GI:68643360"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /locus_tag="SPC19A_0003"
1852. .3297
/gene="wzg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /locus_tag="SPC19A_0001"
<1. .136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /locus_tag="SPC19A_0002"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (267. .1697)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement (267. .1697)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:1313"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 codon start=1/transT table=11
                                                        Streptococcus pneumoniae
Streptococcus pneumoniae
          CR931675.1 GI:68643359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="dexB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'gene="dexB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="tnp"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1852. .3297
/gene="wzg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .18617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pseudo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pseudo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
      VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
/codon start=1
/transl_table=11
/product="dIDP-4-keto-6-deoxyglucose-3,5-epimerase"
/product="dIDP-4-keto-6-deoxyglucose-3,5-epimerase"
/product="dI1:4406250"
/db_xref="GI:4406250"
/db_xref="GI:4406050"
/db_xref="GI:4406050"
/db_xref="GI:4406050"
/db_xref="GI:4406050"
/db_xref="GI:4406050"
/db_xref="GI:4406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RANIEEILGBRUELUVGGIADAALVDKLAAEBDAIVHYAAESINDDESPETHTN
FIGTYTLLEAARKYDIRFHHVSTDEVYGDLPLREDLPGHGEGLGEKFTAETKYNPSSP
YSSTKAASDLIVKAWYRSFGYKATISNCSNNYGPYQHIEKFIPRQITNILSGIKPKLY
GEKRUNDWIHTNDHSSGVWTILTKGQIGETYLIGADGEKNNKEVLELILKEMGQPAD
AYDHYDFAGHDLKYAIDASKLRDELGWKPEFTNFEAGLKETIKWYTDNQDWWKSEKE
AVEANYAKTQQVIK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /transI_table=11
/product="dTDP-L-rhamnose synthase"
/protein_id="AAD19916.1"
/db_xref="dI:4406552"
/translation="MILITGANGQLGTELRYLLNERNVDYVAVDVTEMDITNSEMVEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start=1
|transl_table=11
|product="dTDP-glucose-4,6-dehydratase"
|protein_id="AAD19915.1"
|db_xref="GI:4406251"
|translation="MTEXKXIIVTGGAGFIGSNFVHYVYNNFPDVHVTVLDKLTYAGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VFAEVKPTLVYHCAAYTAVDAAEĎEGKELDPAINVTGTENVAKGSEKYGAILVYISTD
YVBOKKKPOGGBWYDDIDPOGTBYGRTRAMGEBLVBRLISGRIJIETAMVFGRYGRN
FVPTMQSLAETHKTLTVUSDQYGRPTWTRTLAEPMTVTENQKBYGYYHLSNDAAEDT
TWYDPASEILKESDVELLPVDSSKFPAKARRPLNSTNSLAKARAFGFVIPTWODALKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2722 ATTACAGACGTTAACAAGGCTTACCTAAATCGTGGTGACCTTTCTGTGTGAGCTGATGGGG 2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear BCT 30-JUN-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            32 ATTACTGACGACAAAAGACCCCGACACAGATGGTCGGGGGTCTTTTTGTTGTGGTGCTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CR931675 18617 bp DNA linear BCT 3
Streptococcus pneumoniae strain Nr. 141/68 (serotype 19a)
CR931675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; DB 1; Length 5832;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             35; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cerecitrirecerecirecaraceca 2808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein_id="AAD19917.1"
db_xref="GI:4406253"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92 CGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 31;
Pred. No. 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4659. .4704
complement (4717. .5571)
/gene="cps19AO"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (4717, .5571)
/gene="cps19A0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               translation="MKSSK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      table=11
                                                                                                                                                                                                                                                                                            1609. .4655
gene="cps19AN"
                                                                                                                                                                                                                                                                                                                                                               1609. .4655
gene="cps19AN"
                                                                                                                                                                                                                                                                                                                                                                                                                        note="Cps19AN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="Cps19AO"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     product="AliA'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                codon start=1
transI table=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /codon_start=1
/transl_table=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24.0%;
ilarity 59.8%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5817. .>5832
/gene="aliA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5817. .>5832
/gene="aliA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FYKQEVRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 52; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
CR931675
                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
```

```
13947 ATTACAGACGTTAACAAGGCTTACCTAATCGTGGTGACCTTTCTGTTGAGCTGATGGGG 14006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     / Godon start=1
/ transI table=11
/ product="undecaprenylphosphate glucosephosphotransferase
%cha (100 under transferase) "
/ protein_id="CA133627.1"
/ db_xref="G1:66643365"
/ translation="MSERTAKESVILELYOFTKYLLEFFALAISISNPFLEDRRSISRRGMIYF
LILHWPLVYVLNPFIKMYWKRAYPNFKGSKKILLLTATSRVEKVLDEDDRSISRRGMIYF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VAVSYLDKPDFQHDDLKVVAEGEIVNFATHEVVDEVFINLPSEKYNIGELVSQFETMG
IDVTVALANEDWARRKQICEMAGLAUVTFSTTFYKTSHVIARVIIDIVGSLVGLILCG
IDVTVALANEDGSSAFFAQTRIGKNGRHFTFYKFSMCVDAERGRELAEQNTMQG
GWEKVDDDRIIKGGSAFFIRKTSLDELPQFYWYLKGDMSLVGTRPPTVDEYERTPEQK
RRLSFKPGITGLMQVSGRSEIKNFDEVVKLDVAYIDGWTIMKDIEILLKTVKVVLMKD
                                                                                                                                                                                                                                                                                                                                                                                 /product="tyrosine-protein kinase Wze"

/protein id="CA1336861"

/db xref="G1:66643364"

/translation="MPTLEISQAKUELVKKAEEYYNALCTNLQLSGDDLKVFSITSVK
AGGEKTTFYNIAMAPARACYTLLLIADDMNNSVMSGVFKERERITGTFEFLGSTTDL
AGGEKTTFINIAMAPARACYTLLLIADDMNSVMSGVFKERERITGTFEFLGSTTDL
SQGLCDTNIENLFYLQGGSVSPMPTALLQSKNFTTMLETLRKKFDYIVUDTAPVGVVJ
DAAIIMQKCDASILVTKAGETKRRDLQKAKEQLEQTGKSCLGVVLNKLDTSVEKYGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BCT 09-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Streptococcus pneumoniae serotype 19A DexB (dexB) gene, partial sequence; capsular polysaccharide biosynthesis operon, complete sequence; and oligopeptide permease AliA (aliA) gene, partial cds. AF094575  
AF094575.  
GI:3907597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /locus tag="SPC19A_0005"
/note="P800217 Sugar transport proteins signature 2."
/note="2 probable transmembrane helices predicted for SPC0965 by TMHMM2.0 at aa 24-46 and 180-202"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /locus tag="SPC19A_0007"
/note="5 probable Transmembrane helices predicted for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .5528,5541. .5594,5628. .5696,5739. .5807,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 18617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /locus tag="SPC19A_0007"
/note="member of homology group 0005 66"
                                                                                                                                                                                                                                                                /locus tag="SPC19A 0006"
/EC number="2.7.1.112"
/note="member of homology group 0003 90"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 31; DB 1;
Pred. No. 78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14007 ceregrirreceregiregaracegea 14033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5445. .6806
/gene="wchA"
/Jecus_tag="SPC19A_0007"
5445. .6806
/gene="wchA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                                                                                 4741. .5430
/gene="wze"
/locus_tag="SPC19A_0006"
4741. .5430
                                                                                                                                                                                                                                                                                                                                       /codon_start=1/transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24.0%;
59.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSYGNYRKQKK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6237. .6305)
/gene="wchA"
                                                                                                                                                                                                                                            /gene="wze"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          join (5469 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
52; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 15
AF094575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOS
                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                      /Jocus tag="SPC19A 0003"
/Jocus tag="SPC19A 0003"
/Jocus tag="Signal peptide predicted for SPC0963 by SignalP 2.0
/note="Signal peptide probability 0.999) with cleavage site
probability 0.540 between residues 39 and 40"
join(1900. .1959,1987. .2055,2074. .2142)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /codon start=1
/transI_table=11
/product=="protein-tyrosine phosphatase Wzh"
/product="protein-tyrosine phosphatase Wzh"
/protein_id="CA133624.1"
/db xref="G1:68643362"
/translation="MIDIHSHIVFDVDDGPKSREESKALLAESYRGGVRTIVSTSHRR
RYALIEFSMYTPYRDHSALSKILM/G1TPV1AHIERYDALBNUEKRYRELINNG
RYALIEFSMYTPYRDHSALSKILM/G1TPV1AHIERYDALBNUEKRYRELINNG
QYNGSHYLKSKLEGERYKFWKKRQYFLERDLVHIIASDMHNVDSRPPHMAEAYDLUS
QYYGEAKAQELFIDNPRKIVWDQLI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DFTSLHGKFHFPVGNVHLDSEQALGFVRERYSLADGDHDRGRNQQKVIAAILQKLTSS
EALKNYSRIIDSLQDSIQTNMPLETMINLVNAQLESGGTYKVNSQDLKGMGRTDLPSY
AMPDSNLYMMEINDSSLASVKTAIQDVLEGR"
                                                                                                                                                                                                                                                                                                                                                                  /locus tag="SPC19A 0003"
/note="HMMPfam hit to PF02916, DNA polymerase processivity
factor, acore 6.7e-65"
2581. .3024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              product="capsular polysaccharide biosynthesis protein
'zd"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               %611. .3925
// gene="warh"
/locus tag="SPC19A 0004"
/note="HMMPfam hit to PF02811, PHP, C-terminal, score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /locus tag="SPC19A_0003"
/note="HWMPfam hit to PF03816, Cell envelope-related
transcriptional attenuator, score 2.8e-72"
                                                                                                                                                                                                                                                 /locus tag="SPC19A 0003"
/note="3 probable transmembrane helices predicted
SPC0963 by TWHMM2.0 at aa 17-36, 46-68 and 75-97"
2059. .2403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /Jocus tag="SPC19A_0005"
/Jocus tag="SPC19A_0005"
/note="HWMPfam hit to PF02706, Lipopolysaccharide
blosynthesis, score 1.6e-56"
join(4105, .4173,4573. .4641)
/gene="wzd"
/locus_tag="SPC19A_0005"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /locus tag="SPC19A 0005"
/note="member of homology group 0002 90"
/codon start=1
/transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  locus tag="SPC19A_0004"
'RC_number="3.1.3.48"
'note="member of homology group 0001 90"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /locus_tag="SPC19A_0004"
3299. .4030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             locus tag="SPC19A_0005"
1036. .4731
| gene="wzd"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4036. .4731
/gene="wzd"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3299. .4030
/gene="wzh"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4057. .4473
/gene="wzd"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "gene="wzh"
                                                                                                                                                                                                                                                                                                                                                                gene="wzg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene="wzg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                   misc_feature
                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
```

1

```
/transl_table=11
/product="glucosyl-1-phosphate transferase Cps19aB"
/product="glucosyl-1-phosphate transferase Cps19aB"
/protain_id="AAC78667.1"
/db_xref="d1:3097603"
/translation="MSEKLAKPSVAIVQSFLVILLTYLLSAVRETBIVSTTAIVLXIL
/pref="grown by the production by the property of the property of the property of the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the production by the produ
                                              KGMFETPEEKIAENPLQVREIAKEVASDLVIAYGAEIYYTSDVLDKLEKNRIFTLNNS
YSALIBENNAMTPYRDIHSALAKILMIGITPVIAHIERYDALENNEKRYRELINMGCYT
QVNSSHVLKSKLFGERYKRYKKKAQYFLERDLVHIIASDWHNVDSRPPHMAEAYDLVS
QKYGEAKAQELPIDNPRKIVMDQLI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /protein_id="AAC78665.1"
/brotein_id="AAC78665.1"
/baxref="ad1:3907601"
/translation="WWERGNTIEIDVFOLLKTLWKHKLIILLVALVTGAGAFAYSTFI
VKPEYTSTARIYVNRNGGDKPGLTNODLQAGTYLVKDYREIILSQDVLEKVATNIKL
DMPAKTLISKVQYTVPADTRIVSISVKDKQPEBASRIANSLREVAAEKIIAVTRNSDV
PILERARPAMTPSSPNVRRNTLVGFLGGAAVTVITVLLIELLDTRVKRPEDVEDVLQM
PLLGVVPDFDKWK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product="Cps19ap"
/protein id="AAC7866.1"
/brotein id="AAC7866.1"
/db xref="G1:3907602"
/translation="MPTLEISQAKLELVKKAEEYYNALCTNLQLSGDDLKVFSITSVK
AGRGKTTFRINIAMARARGKTLLIDADMRNSVMSGVFKERRRITGITEFLGCTTDL
SQGLDTNIRNLFVLQGSVSPNPALLQSKNPTTMLETLRKYFDYIVUTAPVGVVJ
DAAIIMQKCDASILVTKAGETKRRDLQKAKRQLEQTGKSCLGVVLNKLDTSVEKYGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDVITVNIAPDMARNKQI CEMAGLNVVTFSTTPYKTSHVIAKRI I DI VGSLVĞILILCG
LUSTUAVDLI ILKDGGSAFFAQTRIGKUGRHFTFYKRSKMCVDABEKKUSELMEQNTMQC
GMEKVDDDRI ILKIGHPIRKTSLELENGPYNVLKGDMSLVGTRPPTVDEYSHTPEQK
RRLSFKPGITGLMQVSGRSEI KNFDEVVKLDVAYI DGWTI MKDI BI ILLKTVKVVLMKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /protein_id="AAC78668.1"
/brotein_id="AAC78668.1"
/baxef="cd1:3907604"
/translation="WMRRIQILGITIDPLTMKETVDAVEQYVLKKHPLHLMGVNADKI
NQCYEDEKIKKIVNESGIINADGASVVLASKFLGTPVPERVAGIDLMKHLLELSNEKG
SYVTPKGAKEDVLQDMLKIPERRYPALNVOGYRNGYFSPEDEKHIQEDIKEKKPDFVP
VGITSPFKSYIIQSFRDNGINAVFMGVGSFDVLSGHIKRAPLWMQNAHLEWLFRVAN
BPKRLFKRYFVGNVSFIRKVLRAKRGYKL"
             translation="MIDIHSHIVFDVDDGPKSREESKALLAESYRQGVRTIVSTSHRR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7475. 8257
/gene="cpal9ag"
7475. 8257
/gene="cpal9ag"
/function="putative protein involved in formation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="putative N-acetyl-mannosamine transferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4622. 5311
/gene="cp819aD"
/gene="cp819aD"
/gene="cp819aD"
/fenction="chain length regulation and export"
                                                                                                                                                                                                                                                                                                                    1917. .4612
/gene="cps19aC"
/function="chain length regulation and export"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /transT table=11
/product="Cps19aC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5326. .6687
/gene="cps19aB"
5326. .6687
/gene="cp819aB"
/codon_start=1
/transl_table=11
                                                                                                                                                                                                                            3917. .4612
/gene="cps19aC"
3917. .4612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6693. .7436
/gene="cp819aF"
6693. .7436
/gene="cp819aF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /codon_start=1
/transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /codon start=1
/transl table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                     /codon_start=1
/transl_table=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GSYGNYRKOKK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                                             Morona, J.K., Morona, R. and Paton, J.C.
Analysis of the 5' portion of the type 19A capsule locus identifies
two classes of cpsC, cpsD, and cpsE genes in Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon start=1
/transl_table=11
/product=butative regulatory protein Cps19aA"
/product=putative regulatory protein Cps19aA"
/protein id="AAC78663.1"
/db_xref="G1:3907599"
/db_xref="G1:3907599"
/kb_xref="G1:3907599"
/db_xref="G1:3907599"
/db_x
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KTŠKDOS FNI YVSGIDTYGPI SSVSRSYVNILMTVNRDTKKILLTTTPRDAYVPI ADG
RONGOKOLTHAGI YGYDSSI SITTLENI YGYDI INYY KRLAFTSETKLI DLIJGGYDYVDVD
DPT GLAGKFHF PWGWYLLDSEDALGFYRER YSLADGDHDRGRNQCK JAAI LOKLTSS
RALKNYSRI I DSLQDSI QTNMPLETMI NLVNAQLESGGTYKVNSQDLKGMGRI DLESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Morona, J.K., Morona, R. and Paton, J.C.
Direct Submishaba
Submitted (23-SEP-1998) Microbial Microbiology Unit, Women's and
Children's Hospital, King William Rd, North Adelaide, SA 5006,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Morona,J.K., Morona,R. and Paton,J.C.
Comparative genetics of capsular polypaccharide biosynthesis in
Streptococcus pneumoniae types belonging to serogroup 19
J. Bacteriol. 181 (17), 5355-5364 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1733. .16682
/gene="capsular polysaccharide biosynthesis operon"
1733. .3178
1733. .3178
1733. .3178
/gene="cps19aA"
                                                                                                                                     Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="insertion sequence; 3' truncated"
'rpt_family="151202"
'rpt_type=dispersed
1733. .16682

    18754
/organism="Streptococcus pneumoniae"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AMPDSNLYMMEINDSSLASVKTAIQDVLEGR"
                                                                                                                                                                                                                                                                                                                                                                                                                     J. Bacteriol. 181 (11), 3599-3605 (1999)
10348877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /codon_start=1
/transl_table=11
/product="Cps19aB"
/protein_id="AAC78664.1"
/db_xref="G1:3907600"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /protein_id="AAC78662.1"
/db_xref="G1:3907598"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="genomic DNA"
/serotype="19A"
/db_xref="taxon:1313"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /translation="VE"
complement (161. .1647)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <1. .9
/gene="dexB"
/codon start=1
/trans1_table=11
/product="DexB"</pre>
                                    Streptococcus pneumoniae
                                                                                            pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3180. .3911
/gene="cps19aB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="cps19aB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <1. .9
/gene="dexB"
                                                                                                                                                                              Streptococcus.
1 (bases 1 to 18754)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 18754)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 18754)
                                                                                       Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                  pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Australia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                 AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
KEYWORDS
                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
```

```
13828 ATTACAGACGTTAACAAGGCTTACCTAAATCGTGGTGACCTTTCTGTTGAGCTGATGGGG 13887
                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="putative rhamnosyl transferase Cps19aH"
/protein id="AAC78670.1"
/db xetef="Gl:3007606"
/translation="MFCYIILHYKVLEETISCVKSIKEGNSNTKQIVIIDNFSNNGTG
RKLOELYESDSEIDVLINHENAGFAGNNAXCPAKEKYKDFMVINNDIEIETEEF
EKLOELYESDSEIDVLINHENAGFAGNNAXCPAKEKYKDFMVINNDIEIETEEF
EKLOELYESDSEIDVLINHENAGFAGNNAXCPAKEKYKDFMVINNDIEIETEEF
IKKTKCWLKSSKYLLATYIYONREKKKSVDYRKQVENTLIHGSFIVYSBDLIEKEEYAEN
PNTFFYYETEILDYEAELKGYKRIYTPKIKVLHHQNVATNQVYTNLVEKTLFSNKCNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /translation="MTYLELLCTLFLTFFYFPAFNQDLIAPPVVMSVMFLISSVPA
LINVQNWNIEYSGLAYLLIISGIIVFSMPLLALNSPSLATKIKTDRLIDIOFWKIAL
TITVDLILILULYRREINALSHGYTGSNFQMFFRNATSYBGELTVRTSITUL
VSAYI FGYTFINNFFTSHKRSKDLLLLVPFLIFISKTLLSGGRLDIIKILIARIID
VSAYI FGYTFINNFFTSHKRSKDLLLLVPFLIFISKTLLSGGRLDIIKILLIAVVVMA
YIQQKRKVGMDKVISHKYMRLGFVGLIAGIPTFYYSLFLSGRSTTRTVFESISTYLGS
SIOHTNQYIQNPIGYARVFGDESFVALMNILGNLGFVNYNSTVHLEFRQLGITWGNYY
SSIEQVSFTTISLFTLVFIVLVYLMAFFYMNLDFHRGKLVIKLSDTSIKSEN"
10497. 11924
                                                                                                  /procein id="AAC78669.1"
/db_xref="GI:3907605"
/db_xref="GI:3907605"
/translation="MDAIKEPCKICKENNIDFPLRGGSVLGAVKYDGFIPWDDMDIA
VPRGGYDKLPGIFKORIIAGKPCYQVLAVQYCDTLHCYFPRLFLLLEDERKRLGLPRNTNL
GLHILDIIPLDGAPHRSPLRKLYFGKVYWYRFLASLGFTYVGHYVDHYDMISAKQXIIGF
PKKLGFAKLFPQNYVYRRLDNLYKKYDWKKQXYAGTINASLFAKEVMPVEIMGEGVEK
PPEDAFFKVPTEYDRYLKRLYGENYLHEEPSDDEKKSHLGGQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            product="polymerase Cps19al"
protein_id="AAC78671.1"
db_xref="GI:3907607"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 31; DB 1; Length 18754;
Pred. No. 78;
0; Mismatches 35; Indels (
phospho-diester linkage"
                                                  /transT_table=11
/product="Cps19aG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9138. .10472
/gene="cps19a1"
/codon_start=1
/trans1_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ESTSYFLKLMKENEGV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="cps19aJ"
10497. .11924
/gene="cps19aJ"
/codon_start=1
                                                                                                                                                                                                                                                                                              8259. .9137
/gene="cps19aH"
8259. .9137
/gene="cps19aH"
                                                                                                                                                                                                                                                                                                                                                                                                         /codon_start=1
/transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene="cps19aI"
                            /codon_start=1
/transl_table=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 59.8%;
Matches 52; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .10472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9138.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
```

8 8

Search completed: March 7, 2006, 12:15:11 Job time : 1202.77 secs Abx11507 DNA encod Aad58914 Archaeogl Abz12259 Arabidope

Aat 79329

Ach79902 Human gen Aba71582 DNA encod Aba74138 Secreted Ada98673 Human sec Abz67695 Human sec Adm20219 Alternati Abz74137 Secreted Abz16950 Human sec Abz16950 Human sec Abz67694 Human sec Abz4520 Human sec Aca7694 Human sec Aca7694 Human sec Aca7694 Human sec Aca7694 Human sec Aca7660 Human sec Aca7660 Human sec Aca7660 Human sec Aca7660 Human sec

Human sec Human sec CDNA enco

Aca66829

Searched:

Run on:

Minimum Maximum Database

υ

υ υυ

Result Š.

Human sec Human sec Human sec

Acf20404 B Acf19790 B Acd22078 B Acf13243 B

Human sec

```
Solid cancer therapy with anaerobic bacteria of Bifidobacterium sp. by tumor tissue specific delivery of a DNA encoding for an antitumor active
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Solid cancer; anaerobic bacteria; antitumour active protein; cancer; gene therapy; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention describes a method of treating a solid cancer with anaerobic bacteria by site specific delivery of DNA encoding an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= a
/product= "Cancer gene therapy protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer gene therapy associated protein.
                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                 ABT16951
ABZ67695
ABZ74137
ADA98672
ABT16950
ABT16950
ACN44524
ACN44524
ACN4620
ACN69670
ACA66829
ACA66829
ACA66829
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA66820
ACA6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
193. .474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 10; Page 16; 21pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뗦.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-SEP-2001; 2001JP-00290187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-SEP-2000; 2000JP-00287688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABK52324 standard; DNA; 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein or its precursor.
                                                                                                      13540
13540
13540
13540
18038
18038
18038
                                                                                                                                                                                                            18038
165221
165799
                                                                                                                                                                                                                                                        2037
2037
2037
2037
2037
2037
2037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bifidobacterium longum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-448201/48.
P-PSDB; AAU96807.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (AMAN/) AMANO A.
(FUJI/) FUJIMORI M.
JP2002097144-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-APR-2002
 ABK52324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
 υ
                                                                                                                                                                                                                               0 0 0 0 0 0 0 0 0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Abk52324 DNA encod
Ab881850 Bifidobac
Aa65935 Propionib
Acf64464 Propionib
Ade4809 Streptoco
Ad791671 Novel S.
Aa655541 Streptoco
Ad789190 Non-natur
Ad14525 Human ova
Ab101350 Murine ap
Ad89190 Human apo
Ad89493 Apoptosis
Ab101352 Murine ap
Ad89493 Apoptosis
Ab101352 Murine ap
Ad89493 Pseudomon
Abd039398 Pseudomon
Abd033707 Pseudomon
                                                                                                March 7, 2006, 10:55:04; Search time 304.617 Seconds (without alignments) 2822.383 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                             1 tgaccttctgctcgtagcga......tattccggactagttcagcg 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
              5.1.7
Biocceleration Ltd.
                                                                                                                                                                                                                                                                                                      9993994
                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                        4996997 seqs, 3332346308 residues
            GenCore version
Copyright (c) 1993 - 2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AEA61160_0
ABD03998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                         US-10-782-899-1_COPY_472_600
129
                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                       nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE63675
ADK44809
ADR91671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AEA55541
ADQ89190
ADL45225
ABL01350
ADW69564
AEA79104
ADR89493
ABL01352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABD03637
ABD03707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABK52324
ABQ81850
AAS59535
                                                                                                                                                                                                                        IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  genesequ2002as:*
genesequ2002bs:*
genesequ2003as:*
genesequ2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            geneseqn2004as:*
geneseqn2004bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                geneseqn2003ds:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      geneseqn2001as:*
geneseqn2001bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          geneseqn2005s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                           geneseqn1980s:*
geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2000s:*
                                                                                                                                                                                                                                                                                                                                 DB seq length: 0
DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                             N Geneseq 21:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26309
26309
2453
870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1659
1760
1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1836
110000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                :01
                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28.6
28.6
28.6
                                                                                                                                                                              Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                              ٠.
                                                                       OM nucleic
                                                                                                                                                                                            Sequence:
```

Gape

ö

0; Indels

Length 156638;

```
141631 TGGTCGGGGTCTTTTTGTTGTGGTGCTGTGTTGTCCAACCGTATTATTCCGGACT 141572
products, ice-creams, fermented cereal based products, milk based powders, infant formula, pet food or a pharmaceutical composition selected from tablets, liquid bacterial suspensions, dried oral supplement, wet oral supplement, dry tube feeding or wet tube feeding. (I) is useful in DNA arrays or chips to carry out analysis of the expression of the Bifidobacterium gene. ABQ81844 to ABQ81850 represent Bifidobacterium related nucleotide sequences given in the Sequence Listing from the present invention but not mentioned further within the specification. N.B. The sequence data for this patent is not represented in the printed specification but is based on sequence information supplied by the European Patent Office
                                                                                                                                                                                                                                                                                                                                                                                 TGGTCGGGGGTCTTTTTGTTGTGGTGCTGTGTGTTGTCCAACCGTATTATTCCGGACT
                                                                                                                                                                                                                                                                                                                Sequence 156638 BP; 32098 A; 46491 C; 46415 G; 31634 T; 0 U; 0 Other;
                                                                                                                                                                                                                                             100.0%; Score 129; DB 6; 100.0%; Pred. No. 3.2e-33;
                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 30; 1069pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS59535 standard; DNA; 26309 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-APR-2000; 2000US-0199047P.
02-JUN-2000; 2000US-0208841P.
07-JUL-2000; 2000US-0216747P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-APR-2001; 2001WO-US012865.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 129; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141571 AĠŤŤĊAĠĊĠ 141563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Skeiky YAW, Persing DH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treating acne vulgaris.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-616774/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L'maisonneuve J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200181581-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAS59535;
                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                   141691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88888888888888888
                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes a polynucleotide (I) comprising a sequence of a Bifidobacterium genome selected from the nucleotide sequences given in ABGB1842 and ABGB1843, or a sequence exhibiting at least 50% identity or which hybridises with the sequences given in ABGB1843. Also described is a polynucleotide (II) encoding a custom protein, comprising a sequence selected from 1097 sequences given in ABF6528 to ABF66354 ligated in frame to a polynucleotide encoding a cherologous polypeptide. (I) has antidiarrheic and antibacterial crivities, and can be used as an inhibitor of Salmonella. (I) (which is a probe) is useful for the detection and/or identification of affidobacterium longum NCC2705 (CNCM I-2618) can be used for preventing and/or treating diarrhoea brought about by pathogenic bacteria and/or rotavirus. The carrier is a food composition selected from milk, yogurt, curd, cheese, fermented milks, milk based fermented
                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel polynucleotide comprising Bifidobacterium genome sequence useful as a probe or primer for detecting and/or identifying Bifidobacterium longum
                                                                                                                                                                                     TGGTCGGGGTCTTTTTGTTGTGTGCTGTGAGGTGTTGTCCAACCGTATTATTCCGGACT 120
                                                                                                                                                                                                                                                                  591
                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bifidobacterium longum NCC2705 related nucleotide seguence SEQ ID:1106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bifidobacterium longum NCC2705; Bifidobacterium; bacterial; antidarzheic; antidacterial; inhibitor of Salmonalla; detection; identification; lactic acid bacterium; diarrhoea; pathogenic bacteria; rotavirus; food composition; pharmaceutical composition; gene; ds.
                                                                                                                                                                 1 TGACCTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGAGCAGAGA
                                                                                                                                                                                                                                                    TGGTCGGGGTCTTTTGTTGTGGTGCTGTGTGTTGTCCCAACCGTATTATTCCGGACT
                                                                                                                                  Gaps
            antitumour active protein or its precursor. This sequence encodes cancer gene therapy associated protein
                                                                                                                                ö
                                                             Sequence 600 BP; 132 A; 165 C; 161 G; 142 T; 0 U; 0 Other;
                                                                                                                                0; Indels
                                                                                                DB 6,
                                                                                              Score 129; DB 6;
Pred. No. 6e-34;
                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 1106; 80pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                      ABQ81850 standard; DNA; 156638 BP
                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JAN-2001; 2001EP-00102050.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JAN-2001; 2001EP-00102050.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (NEST ) SOC PROD NESTLE SA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-NOV-2002 (first entry)
                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in a biological sample.
                                                                                                                                                                                                                                                                                                                            AGTICAGCG 600
                                                                                                                                                                                                                                                                                                   121 AGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bifidobacterium longum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-668397/72.
                                                                                              Query Match
Best Local Similarity
Matches 129; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EP1227152-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-JUL-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABQ81850;
                                                                                                                                                                                                   472
                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                    532
                                                                                                                                                                                                                                                                                                                                                                                                      ABQ81850,
                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                    쉺
                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                   용
```

```
Sequences AAS59506-AAS59804 represent DNA molecules encoding
Propionibacterium acnes immunogenic polypeptides. The proteins and their
                                                                               SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis; uveitis; endophthalmitis; bone; joint; central nervous system; ELISA; inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay; dermatological; osteopathic; neuroprotectant; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Propionibacterium acnes polypeptides and nucleic acids useful for vaccinating against and diagnosing infections, especially useful
Propionibacterium acnes immunogenic protein encoding DNA #30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bhatia A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wang SS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ing DH, Mitcham JL, Wang St
Zhang Y, Jen S, Carter D;
```

```
diagnosis of medical conditions caused by P. acnes. The disorders include SAPHO Syndrome (Synoritis, acne, pustulosis, Mypertosis and category obstances and such control of particularly involved in the inflammatory lesions sesociated with acne vulgaris. A method for detecting the presence or absence of P. acnes in a particularly involved in the inflammatory lesions associated with acne vulgaris. A method for detecting the presence or absence of P. acnes in a particularly involved in the inflammatory lesions associated with acne vulgaris. A method for detecting the presence or absence of P. acnes in a particularly involved in the inflammatory lesions associated with acne vulgaris. A method for detecting the presence or absence of P. acnes in a particularly involved in very particular and determining the amount of bound protein in the sample. The plypeptides may be used as antigens in the production of antibodies specific for P. acnes proteins. These antibodies and therefore treat P. acnes proteins. The antibodies may also be used as diagnostic agents for determining P. acnes presence. for example, by enzyme linked immunosorbent assay (ELISA). This sequence encodes the polypeptides shown in AAU467985 and AAU67509. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9538 TGACGACGACCATCCCGACTCCCATATTGAGGGTCGCTTCGATGTCAGGCTGTGAGACGT 9597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New Propionibacterium acnes polypeptides and polynucleotides encoding the polypeptide, useful for diagnosing, preventing or treating acne vulgaris, or for stimulating an immune response specific for a P. acnes protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to an isolated polynucleotide (ACF64435-ACF64733)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37 TGACGACAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Carter D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Maisonneuve JL;
Jones R, Carte
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 26309 BP; 5546 A; 8173 C; 7885 G; 4699 T; 0 U; 6 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 4; Length 26309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Acne vulgaris; antiseborrhoeic; dermatological; antibacterial; immunostimulant; immune response; vaccine; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mitcham JL, Skeiky YAW, Persing DH, Bhatia A,
Zhang Y, Wang S, Jen S, Lodes MJ, Benson DR,
Barth B, Vallieve-Douglass J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Propionibacterium acnes DNA contig sequence #30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rececacerecaecaecareaacareace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTCCAACCGTATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 30.6; 1
Pred. No. 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; SEQ ID NO 30; 1481pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACF64464 standard; DNA; 26309 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-OCT-2002; 2002WO-US032727.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-OCT-2001; 2001US-00978825.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-OCT-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 23.77
Best Local Similarity 58.13
Matches 54; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Propionibacterium acnes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-381789/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2003033515-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACF64464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACF64464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
         8888888888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
```

```
composition and access protection.

Comparison of P. acnes polympetides. The invention also relates to polympetides encoded by the polympetides. The invention additionally encompasses expression vectors and host cells comprising a comprising a polympetide of the invention; antibodies against polympetides of the invention; tusion proteins comprising a polympetide of the invention; an method for stimulating an immune response specific for a P. acnes to polympetide and an isolated T cell population comprising T cells prepared via this method; a vaccine composition (comprising P. acnes polympetides, polympetides, antibodies, fusion proteins, T cell populations, or canigen-presenting cells that express the polympetide); a method and kit for detecting or determining the presence or absence of P. acnes in a patient; and a method for inhibiting the development of P. acnes in a patient; and a method for inhibiting the development of P. acnes in a patient; and a method for inhibiting the development of P. acnes in a composition of patient. The P. acnes polympetides, polymucleotides, antibodies, fusion proteins T cell populations or antigen-presenting cells that express the polympetides are useful for adaptabing, preventing or treating acnes polympetides can also be used as probes or primers for nucleic acid hybridisation. The vaccine composition is useful for the sequence represents a P. acnes DNA contis adagnostic assay. The present can the invention. Note: The sequence data for this patent did not form in the invention. Note: The sequence data for this patent did not form disconting and discontine form and the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with the form with 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9538 reaccaccarcccarcccararreaccirccriccarcrecaccriccarccacccrereaccir 9597
encoding a Propionibacterium acnes protein. The invention also relates to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37 TGACGACAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGT 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 26309 BP; 5546 A; 8173 C; 7885 G; 4699 T; 0 U; 6 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, ds, gene, pain, neuronal tissue, gene therapy, spinal segmental nerve injury, chronic constriction injury, CCI, spared nerve injury, SNI, Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 8; Length 26309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9598 recerecreeregaceacerreaacarcece 9630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97 IGTCCAACCGTATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Costigan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch 23.7%; Score 30.6; D Similarity 58.1%; Pred. No. 11; 54; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human gene NM_004046, SEQ ID NO 9619.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADE63675 standard; DNA; 2453 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Befort K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-AUG-2002; 2002WO-US025765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GEHO ) GEN HOSPITAL CORP. (FARB ) BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Woolf C, D'urso D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-268312/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003016475-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADE63675;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADE63675
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
New isolated nucleic acid encoding a Streptococcus pneumoniae
98US-00107433
                                                                  Doucette-Stamm L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-PSDB; ADR94274.
                                                                                                                P-PSDB; ADK47470.
   30-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US6800744-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-OCT-2004.
                                                                                                                                                                                                screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADR91671;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADR9167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                          The invention discloses a composition comprising two or more isolated rate or human polymucleotides or a polymucleotide which represents a fragment, derivative or allelic variation of the mucleic acid sequence. Also claimed are a vector comprising the novel polymucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a acrea or decreases the expression of the polymucleotide sequence that increases or decrease the expression of the polymucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polymucleotide sequence which is differentially compound that regulates the activity of one or more of the polymucleotides, a method for producing a pharmaceutical composition, a compound that regulates the activity of one or more of the polymucleotides for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polympeptides for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polympeptides or their antibodies. The polymucleotide or the compound that compound that modulates its activity is useful for preparing a medicament for treating pain and a pharmaceutical composition comprising the one or more compound that regulates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction injury (CI) and spared nerve injury (Nunu) in an animal (e.g. spinal error injury (SNI)) in an animal (e.g. spinal error prepared decreased during pain. Note: The sequence data for the patent did not form part of the polympetides of the invention which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the polympetides of the invention in the invention in the form part of the polympetides of the p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1864 CCATCACTGCGGACAGATTTCTTGGAACAGAATTGTCTACAAAGGATCCGCCCTCAATTA 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ds; gene; Antibacterial; Gene therapy; Vaccine; Streptococcus pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 10; Length 2453;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2453 BP; 622 A; 536 C; 635 G; 660 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1924 ACGTGGTCGTATCTCGTTCGGATCCGTG 1955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Streptococcus pneumoniae gene, Seq ID No 1324.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64 TCGGGGTCTTTTGTTGTGGTGCTGTGACGTG 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 29.6; Di
Pred. No. 12;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ftp.wipo.int/pub/published_pct_sequences.
                                                                                   Claim 1, Page, 1017pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADK44809 standard; DNA; 870 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0051553P.
98US-0085131P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAY-2000; 2000US-00583110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 57.6 es 53; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Streptococcus pneumoniae.
    GENBANK; NM_004046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-FEB-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JUL-1997;
12-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US6699703-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADK44809;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADK44809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ***********
    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

```
The invention relates to isolated Streptococcus pneumoniae nucleic acids and polypeptides. The nucleic acids and proteins are useful for diagnosing, preventing and treating pathological conditions resulting from bacterial infection, such as S. pneumoniae infection. These may also be used for drug screening procedures. The present sequence represents a Streptococcus pneumoniae nucleic acid of the invention. Note: The sequence data for this patent did not appear in the printed specification but was obtained in electronic format directly from USPTO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     preventing and treating pathological conditions resulting from bacterial infection, e.g. Streptococcus pneumoniae infection, and in drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTACTGACGACAAAGACCCCGACCGAGATGGTCGGGGGTCTTTTTGTTGTGGTGCTGTGA 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                          New nucleic acid molecules and polypeptides useful for diagnosing
                                                                                                                          Houseweart CE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 13; Length 870;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 870 BP; 237 A; 166 C; 215 G; 252 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Meningitis; bacteraemia; pneumonia; otitis media; ds;
                                                                                                                          Opperman T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel S. pneumoniae DNA sequence, SEQ ID 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; SEQ ID NO 1324; 301pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 29.4;
Pred. No. 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cerecriring contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contraction contra
                                                                                                                                 Zeng Q,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GENO-) GENOME THERAPEUTICS CORP.
(GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-0051553P.
98US-0085131P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ch 22.8%;
1 Similarity 58.6%;
51, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADR91671 standard; DNA; 885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ä
                                                                                                                                 Bush D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bush
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Streptococcus pneumoniae.
                                                                                                                                                                                                                                                                  WPI; 2004-212399/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2004-697205/68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bacterial infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Doucette-Stamm LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
```

2005-477576/48.

us-10-782-899-1_copy_472_600.rng

```
The invention relates to an isolated mucleic acid comprising a sequence encoding a Streptococcus pneumoniae ADR91366polypeptide, or its cargenoccus pneumoniae ADR91366polypeptide, or its ancoding a Streptococcus pneumoniae ADR91366polypeptide, or its an encoding a Streptococcus pneumoniae ADR91369, ADR95612, ADR95682, ADR96079) or any of the fully defined sequences appearing as ADR91705, ADR96079) or any of the fully defined sequences appearing as ADR91705, ADR991886, ADR92197, ADR92314, ADR93039, ADR992366, ADR992680 or ADR991886, ADR92197, ADR99234, ADR993099, ADR992660 or ADR991886, ADR92197, ADR99234, ADR993099, ADR99266, ADR992660 or ADR993086, ADR992660 or an least 20 or 30 consecutive nucleotides sequences. The nucleic acid cited above operably linked to a transcription regulatory comprising at least 20 consecutive nucleotide are a recombinant expression vector and a probe comprising at least 20 consecutive nucleotide of the present sequences as cited above. The methods and compositions of the present invention are useful for the diagnosis, prevention and/or treatment of pathological conditions regulating from bacterial infection by continue nucleic acid sequences. Note: The sequence data for this contitis media. The present sequence is one of the 2603 disclosed S. CC pneumoniae nucleic acid sequences. Note: The sequence data for this patent did not form part of the princed appearance. The sequence data for this capacine of the continue nucleic acid sequences. Note: The sequence data for this capacine of the princed appearance of the princed appearance. The patent of the princed sequence of the continue nucleic acid sequence. The sequence data for this capacine of the princed appearance of the princed appearance. The sequence data for this capacine of the princed appearance of the princed appearance. The sequence data for this capacine and appearance of the princed appearance. The sequence data for this capacine of the princed appearance of the princed appearance. The sequence data for this capacine of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             604 ATTACAGATATCAACAAGGCTTACCTAAATCGTGGTGACCTTTCTGTTGAGCTGATGGGG 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32 ATTACTGACGACAAAGACCCCGACCGAGATGGTCGGGGGTCTTTTTGTTGTGGTGCTGTGA 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bacterial infection; Streptococcus pneumoniae infection; antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Streptococcus pneumoniae ORF nucleic acid sequence SEQ ID NO:306.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
polypeptide, useful for diagnosing, preventing and/or treating pathological conditions resulting from the bacterial infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 885;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 885 BP; 243 A; 168 C; 218 G; 256 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22.8%; Score 29.4; DB 13; 58.6%; Pred. No. 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                     Disclosure; SEQ ID NO 306; 151pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cerecirrirecerecirecaracedea 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AEA55541 standard; DNA; 885 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97US-0051553P.
98US-0085131P.
98US-00107433.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JUL-2003; 2003US-00617320.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOUCETTE-STAMM L A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bush D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 58.6
1es 51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Streptococcus pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Doucette-Stamm LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   vaccine; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2005136404-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BUSH D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-JUL-1997;
12-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-AUG-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-JUN-2005.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AEA55541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BUSH/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOUC/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AEA55541
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

```
The inversion relates to an isolated nucleic acid molecule from bacterial preventing or treating pathological conditions resulting from bacterial infection. The isolated nucleic acid comprises: (a) any of the 2603 mucleotide sequences of ARA57818; (b) a nucleotide sequence conditions as treeptococcus pneumoniae polypeptide comprising any of the canceling any of the nucleotide sequence in the sequence of at least 8 nucleotides in length, where the sequence is sequence of at least 8 nucleotides in length, where the sequence is above nucleic acid operably linked to a transcription regulatory element; (c) a call comprising the recombinant expression vector. (d) producing an consisting of at least 8 nucleotides of any of ARA5536 to ARA57839; (s) treating a subject for 8, pneumoniae polypeptide (d) a probe comprising a nucleotides of any of ARA55336 to ARA57839; (s) treating a subject for 8, pneumoniae polypeptide is selected from ARA57839 to ARA6741; (7) a vaccine composition of an S. pneumoniae polypeptide or its cangenent, where the polypeptide is selected from ARA57839 to ARA6741; (7) a vaccine composition for preventing or treating an S. pneumoniae (d) a computer readable medium having recorded the nucleotide sequences of ARA57839; (l) a computer readable medium having recorded the nucleotide sequences of ARA57839; (l) a computer based system for identifying fragments of the Streptococcus genome of commercial importance. The present composition and methods are useful for diagnosing, preventing or treating bacterial infections, particularly S. pneumoniae infection. The present sequence composition and methods are useful for diagnosing, preventing or treating bacterial infections, particularly S. pneumoniae of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print of the print 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      604 ATTACAGATATCAACAAGGCTTACCTAAATCGTGGTGACCTTTCTGTTGAGCTGATGGGG 663
                                                                                                                                                                                                                                                                The invention relates to an isolated nucleic acid molecule for detecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32 ATTACTGACGACAAAGACCCCGACCGAGGTGGTCGGGGGTCTTTTTGTTGTGGTGCTGTGA 91
                                                                                                   New isolated nucleic acid molecules and encoded polypeptides useful for diagnosing, preventing or treating bacterial infections, particularly Streptococcus pneumoniae infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Сарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene therapy; ND4 mitochondrial protein; ND4; cellular dysfunction; mtDNA mutation; Leber Hereditary Optic Neuropathy; mitochondrial gene mutation; human; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 14; Length 885;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 885 BP; 243 A; 168 C; 218 G; 256 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0, Mismatches 36, Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Non-natural ND4 mitchondrial protein coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22.8%; Score 29.4; I 58.6%; Pred. No. 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92 CGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              664 cérécirirgecreciregaraceda 690
                                                                                                                                                                                                           Claim 1; SEQ ID NO 306; 144pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        directly from the USPTO web site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADQ89190 standard; DNA; 1377 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-OCT-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
                                                 P-PSDB; AEA58144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2004142419-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADQ89190;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADQ89190,
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

ô

```
21-DEC-2000; 2000US-0257672P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         XXXXXXXX
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1292 greaagcricecerricargricargregiegreficacecrecececerergricariere 1233
                                                                                                                                                                                                                                                                                                           The invention describes a non-naturally occurring nucleic acid comprising a nucleotide sequence that encodes a functional ND4 mitochondrial protein and differs from a naturally occurring nucleic acid that encodes a ND4 mitochondrial protein by at least one codon substitution. Also described are: a cell into which has been introduced the non-naturally occurring nucleic acid above; and reducing dysfunction in a cell caused by a mtDNA mutation associated with Laber Hereditary Optic Neuropathy. Specifically claimed is non-naturally occurring ND4 nucleic acid comprising 1377 base pairs (SEQ ID NO. 1), fully defined in the specification. The nucleic acid is useful for reducing cellular dysfunction caused by mitochondrial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57 GAGATGGTCGGGGGTCTTTTGTTGTGTGTGTGACGTGTTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                           sequence
reducing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene mutations. Compositions comprising the non-naturally occurring nucleic acids are also useful for treating mtDNA mutations in animal subjects, including humans. This sequence represents a non-naturally occurring ND4 mitochondrial protein encoding polynucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                         New non-naturally occurring nucleic acid comprises a nucleotide that encodes a functional ND4 mitochondrial protein, useful for cellular dysfunction caused by mitochondrial gene mutations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 12; Length 1377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1377 BP; 330 A; 436 C; 341 G; 270 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; ovarian cancer; ds; tumour; cytostatic; DNA marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 12;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 29.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human ovarian cancer DNA marker #19115.
                                                                                                                                                                                                                                                                                Claim 7; SEQ ID NO 1; 16pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADL45225 standard; DNA; 3520 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0207124P.
2000US-0211940P.
2000US-0216820P.
2000US-0220661P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-MAR-2001; 2001WO-US009126.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0191031P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.8%;
63.4%;
                                     17-OCT-2003; 2003US-00687677.
                                                                       18-OCT-2002; 2002US-0419435P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1232 AACATGTACAG 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 63.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               117 GACTAGTTCAG 127
                                                                                                                                                                            WPI; 2004-579908/56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200170979-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-MAY-2000;
15-JUN-2000;
07-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-MAY-2004
       22-JUL-2004
                                                                                                         (GUYJ/) GUY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADL45225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                         Guy J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADL45225
```

셤 ઠે 셤

ò

```
The invention relates to nucleic acid markers which are overexpressed in ovarian cancer cells as compared to their expression in normal (i.e. non-cancerous) ovarian cells. The invention also relates to polypeptides cancerous) ovarian cancer intibodies that selectively bind to the canceded by the markers, antibodies that selectively bind to the canceded by the markers, antibodies that selectively bind to the polypeptides, amethod of inhibiting ovarian cancer in a patient at risk of developing ovarian cancer involving inhibiting expression of a gene corresponding to a marker of the invention and a method of treating a patient an antisense oligonucleotide complementary to a marker of the invention. The markers are useful for assessing if a patient is afflicted with ovarian cancer, which involves comparing the level of expression of a marker in a patient sample and a normal level of expression of the amerker in a control non-ovarian cancer sample. A difference between the expression levels indicates ovarian cancer mapped of expression of the marker cresponds to a secreted protein or to a transcribed of polymucleotide or its portion. The level of expression of the marker is assessed by detecting the presence in the sample, a protein or protein or protein and antibody that specifically binds with the protein or protein fragment. Alternatively, the level of expression of the marker is assessed by detecting the marker or anneals with a portion of the polymucleotide comprising the marker or anneals with the marker or anneals with the marker or anneals with the marker or anneals with a poetion of ovarian cancer in a mapped at a first point in time, repeating the merker of anneals with a patient or anithody of the invention is used to trace ovarian cancer. The sequence represents a human ovarian cancer by marker of the printed specification, but was obtained in electronic format directly of the marker is a sequence represente a human ovarian cancer by marker of the printed specification, but was obtained in electronic for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27 cecretacrecrencerectracerretreriranges arra arcecres es es
                                                                                                                                                                                                                                                                        Novel isolated nucleic acid molecules (markers) overexpressed in ovarian
                                                                                                                                                                                                                                                                                                                  ovarian cells are
                                                                                                                                                                                                                                                                                                                            cancer cells as compared to their normal non-cancerous ovarian cells are
used to characterize stage, grade, histological type of ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64 TCGGGGTCTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTC 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    87 gcgangregrirircrigiggegergraaccreereereerearrearaaree 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22.8%; Score 29.4; DB 5; Length 3520; 54.1%; Pred. No. 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3520 BP; 679 A; 939 C; 1047 G; 855 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  51; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; SEQ ID NO 19115; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
(MILL-) MILLENNIUM PREDICTIVE MEDICINE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murine apoptosis related DNA sequence #15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABL01350 standard; DNA; 634 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60; Conservative
                                                                                                                                                                                   WPI; 2001-611502/70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABL01350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                   Lee J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABL01350/
```

ö 63

Immunogenic composition useful for eliciting gp120-specific immune response, comprises isolated gp120 polypeptide or isolated polynucleotide encoding gp120 amino acid sequence.

10-JUN-2004; 2004WO-US018672. 12-JUN-2003; 2003US-0477815P

WO2004110384-A2. 23-DEC-2004. Berman PW, Jobes DV; WPI; 2005-039971/04.

P-PSDB; ADW69565

(VAXG-) VAXGEN INC.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   48 ACCCCGACCGAGATGGTCGGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGT 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     245 Arcccrcaccrccriggeceargregririrerrergegecereraccreeregeceaerre 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid is associated with apoptosis. The sequences can be used in the diagnosis, treatment and prevention of diseases associated with excessive or inadequate apoptosis, including tumours, autoimmune diseases, viral infections, degradative diseases (Alzheimer's, alcohol-induced injury to the liver, for identifying agents for treating these diseases, and to prepare transgenic animals in which expression of an apoptosis related sequence is altered. These are useful for genetic animaly dilatory cardiomyopathy. The present sequence is one of the apoptosis related sequences of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                 New apoptosis-associated nucleic acid sequences and polypeptides, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       present invention relates to nucleic acids from the mouse, where the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunogenicity; anti-hiv; vaccine; immune stimulation; HIV-1 infection; gpl20; gene; ds; U-323c11.
Apoptosis; mouse; cancer; autoimmune disease; viral infection; Alzheimer's disease; Parkinson's disease; Huntington's disease; reperfusion injury; stroke; liver damage; dilatory cardiomyopathy; transgenic animal; hepatotropic; antialcoholism; cytostatic; immunosuppressive; virucide; nootropic; neuroprotective; vasotropic; antiparkinsonian; cerebroprotective; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                               Gewies A, Voss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 29.2; DB 6; Length 634;
                                                                                                                                                                                                                                                                                                                                                                                                                              for diagnosis, treatment and prevention of e.g. tumors and neurodegeneration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 634 BP; 157 A; 184 C; 160 G; 133 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33; Indels
                                                                                                                                                                                                                                                                                             (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
                                                                                                                                                                                                                                                                                                                                 Cramer U,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 11;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA encoding HIV-1 gpl20 protein, U-323cll.
                                                                                                                                                                                                                                                                                                                             Schoenfeld N, Braziulis E, C:
Albayrak T, Gille H, Klein M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108 ATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       185 Arcaargccracrregregace 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 137; 227pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADW69564 standard; DNA; 1659 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immunodeficiency virus 1.
                                                                                                                                                                                                                           30-MAY-2001; 2001DE-01026344.
                                                                                                                                                                                                                                                             14-JUL-2000; 2000DE-01034303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               59.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 59.8
Les 49; Conservative
                                                                                                                                                                                                                                                                                                                                               Mund T, Albayrak T,
                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-115563/16.
                                                                                                                                                      DE10126344-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-MAR-2005
                                                                                                                                                                                       24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADW69564;
                                                                                                                                                                                                                                                                                                                            Grimm S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                       Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADW69564/
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
```

```
ö
                                                                                                                                                                                                                                           71 CTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACTAGTTCAGC 128
                                                                                                                                                                                                                                                  991 ciririrciridiariciricirideciririracaarirariacadarircade 934
                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                           DB 14; Length 1659;
                                                                                                                                                                                                                    Sequence 1659 BP; 610 A; 270 C; 392 G; 387 T; 0 U; 0 Other;
                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                           Score 29.2;
                                                                        Claim 44; SEQ ID NO 53; 130pp; English.
                                                                                                                                                                                                                               Pred. No.
                                                                                                                                                                                                                                                                     AEA79104 standard; cDNA; 1760 BP.
                                                                                                                                                                                                                           22.6%;
                                                                                                                                                                                                                               69.04;
                                                                                                                                                                                                                                                                                     11-AUG-2005 (first entry)
                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                   40;
                                                                                                                                                                                                                                                                             AEA79104;
                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                              RESULT 13
                                                                                                                                                                                                                                                                  AEA79104
셤
                                                                                                                                                                                                                                                                          XXXE
                                                                                                                                                                                                                                           ઠે
```

ADR89493 standard; DNA; 1800 BP.

ADR89493;

```
This invention describes novel nucleic acid molecules that are associated with apoptosis and encode a polypeptide and are derived from a normalised gene library (embryonic or liver) or clone collections, and the extent of apoptosis measured by cell death detection assay or the CPRG assay (measuring loss of membrane integrity). The products of the invention have cytostatic, neuroprotective, immunosuppressive, antirheumatic, caracteric, dermatological, antiinflammatory, hepatotropic, virticide, notropic, anticonvulsant, antiantimenatory, hepatotropic, virticide, notropic, anticonvulsant, antiantimenatory, hepatotropic, virticide, notropic, anticonvulsant, antiantimenatory, and can be used for gene therapy. The polymuclectides also related vectors, hosts (or their extracts), encoded polypeptide (or their receptors) and/or agents that inhibit their activity (including antisense sequences) are used for treatment or prevention of tumours, autoimmune or degenerative diseases and viral infections, specifically leukaemia, carcinoma, sarcoma, multiple solerosis, rheumacoid arthritis, diabetes, lupus, or infection parkinson's diseases, reperfusion injury, stroke and alcoholic liver parkinson's diseases, reperfusion injury, stroke and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alcoholic liver and alc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48 ACCCCGACCGAGATGGTCGGGGTCTTTTTTTTGTGGTGCTGTGACGTGTTGTCCAACCGT 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New nucleic acids involved in apoptosis, useful for diagnosis and treatment of e.g. tumors and degenerative disease, also related proteins, antibodies and modulators.
                                                                    apoptosis, cell death, cytostatic, neuroprotective, immunosuppressive, antiruteumatic; antiarthritic; dermatological; antiritlammatory; hepatotropic; virucide, nootropic; anticonvulsant; antiparkinsonian; vasotropic; verebroprotective; antialcoholic; gene therapy; tumour; autoimmune disease; degenerative disease; viral infection; leukaemia; carcinoma; sarcoma, multiple sclerosis; rheumatoid arthritis; diabetes; lupus; hepatitis; influenza viruses; Alzheimer's disease; Huntington's disease; Parkinson's diseases; reperfusion injury; stroke;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     encodes an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 11; Length 1760;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     also be used for diagnosis of these diseases. This sequence apoptosis-associated protein described in the disclosure of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1760 BP; 326 A; 513 C; 535 G; 386 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Schaefer R, Kesper B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                       Human apoptosis-associated cDNA SEQ ID 209
                                                                                                                                                                                                                                                                                                              alcoholic liver disease; human; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 29.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim la; SEQ ID NO 209; 517pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Koenig-Hoffman K, Kazinski M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (XANT-) XANTOS BIOMEDICINE AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-JAN-2003; 2003WO-EP000270.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-JAN-2002; 2002DE-01000856.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-542134/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003058021-A2
                                                                                                                                                                                                                                                                                                                                                                      ношо варіелв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

```
The present invention relates to novel purified proteins (I) and their coding sequences (II) (ADR89477-ADR89550), which are capable of inducing approprials. The proteins (I) are useful as a target in screening for compounds that modulate approsis. Compounds that modulate approsis. Compounds that modulate the expression or activity of the protein may be useful in treating neurodegenerative diseases, ischaemic diseases, cancer, autoimmune diseases, or viral diseases. Measurement of the expression or activity of the protein may also be used to disease or disease or a susceptibility to a disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48 ACCCCGACCGAGATGGTCGGGGGTCTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGT 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New protein capable of inducing apoptosis, useful in screening for compounds that inhibit or induce apoptosis which may be used to treat neurodegenerative, ischemic, autoimmune and viral diseases, and cancer.
                                                                                                                        Cytostatic; Immunosuppressive; Neuroprotective; Vasotropic; Virucide; apoptosis; neurodegenerative disease; ischaemic disease; cancer; autoimmune disease; viral disease; murine; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 29.2; DB 13; Length 1800;
Pred. No. 15;
0; Mismatches 33; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1800 BP; 323 A; 526 C; 556 G; 395 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                       /product= "Apoptosis-inducing protein"
                                                                                           Apoptosis-inducing protein coding sequence, SEQ ID 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 4; SEQ ID NO 17; 316pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108 ATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       829 ATCAATGCCTACTTGGTGGACG 850
                                                                                                                                                                                                                     Location/Qualifiers
1. .1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Muramatsu S, Takeda M, Matsuda A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ASAH-) ASAHI KASEI PHARMA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABL01352 standard; DNA; 1836 BP
                                                                                                                                                                                                                                                                                                                                                                       05-MAR-2004; 2004WO-JP002899.
                                                                                                                                                                                                                                                                                                                                                                                                     07-MAR-2003; 2003JP-00061179.
10-MAR-2003; 2003US-0452943P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-MAR-2002 (first entry)
                                                               (first entry)
                                                                                                                                                                                                                                                            ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-662343/64.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB; ADR89494.
                                                                                                                                                                                                                                                                                                          WO2004078112-A2.
                                                                                                                                                                                            Mus musculus.
                                                             02-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49;
                                                                                                                                                                                                                                                                                                                                         16-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABL01352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABL01352
XXXE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

ö

Gaps

ò 셤 RESULT 14

```
The present invention relates to nucleic acids from the mouse, where the nucleic acid is associated with apoptosis. The sequences can be used in the diagnosis, treatment and prevention of diseases associated with excessive or inadequate apoptosis, including tumours, autoimmune diseases, viral infections, degradative diseases (Alzheimer's, alcohol-induced injury to the liver, for identifying agents for treating these diseases, and to prepare transgenic animals in which expression an apoptosis related sequence is altered. These are useful for genetic and/or pharmacological investigations of apoptosis and related diseases, including dilatory cardiomyopathy. The present sequence is one of the apoptosis related sequences of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New apoptosis-associated nucleic acid sequences and polypeptides, useful for diagnosis, treatment and prevention of e.g. tumors and neurodegeneration.
                                                                       Alzheimer's disease; Parkinson's disease; Huntington's disease; reperfusion injury; stroke; liver damage; dilatory cardiomyopathy; transgenic animal; hepatotropic; antialcoholism; cytostatic; immunosuppressive; virucide; nootropic; neuroprotective; vasotropic; antiparkinsonian; cerebroprotective; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                      VOSS F;
                                                         Apoptosis; mouse; cancer; autoimmune disease; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22.6%; Score 29.2; DB 6; Length 1836; 59.8%; Pred. No. 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Gewies A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1836 BP; 341 A; 534 C; 562 G; 399 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Schoenfeld N, Braziulis E, Cramer U, Albayrak T, Gille H, Klein M;
                                                                                                                                                                                                                                                                                                                                                                                           (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN,
                  Murine apoptosis related DNA sequence #17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 138-139; 227pp; German.
                                                                                                                                                                                                                                                                                                                 30-MAY-2001; 2001DE-01026344.
                                                                                                                                                                                                                                                                                                                                                      14-JUL-2000; 2000DE-01034303.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-115563/16.
                                                                                                                                                                                                                                   DE10126344-A1.
                                                                                                                                                                                                                                                                          24-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                Grimm S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mund T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                Mus sp.
```

ö

0; Gaps

0; Mismatches 33; Indels

Best Local Similarity 59.8 Matches 49; Conservative 108 ATTATTCCGGACTAGTTCAGCG 129

873 ATCAATGCCTACTTGGTGGACG 894

Search completed: March 7, 2006, 12:31:08 Job time: 307.617 secs

This Page Blank (Uspto)

Scoring table:

Searched:

••

Database

Perfect score:

Sequence:

OM nucleic

Run on:

```
1. .600
| organism="Sarcoptes scabiei"
| organism="Sarcoptes scabiei"
| db xref="taxon:52283" |
| clone="SAS0334" |
| clone="Lb="S. scabiei cDNA library" |
| clone="The Sarcoptes scabiei mixed lifestage library was |
| ore="The Sarcoptes scabiei mixed lifestage library was |
| constructed by Jens G Mattesson. cDNAs were synthasized |
| from poly(A) + RNA by oligo d(T) priming, size-selected and directionally cloned into the Uni-ZAP lambda vector |
| (Stratagene). The primary library was amplified on |
| XL1-Blue MRF' cells.
                                                               BG925693 HNC13-1-B
BG925693 HNC13-1-B
CN168123 AGENCOURT
AL290039 THATRACOORT
CD107403 AGENCOURT
BJ305960 BJ305960
AK210039 MJB MUBCU
BM521973 ESSU0510
                                                                                                                                         AK210039 Mus muscu
BM521973 BSSU0510
H76502 18207 Lambd
CG997493 ZMMBBD053
BII14606 602861984
AK77875 Mus muscu
AK7201694 Mus muscu
                                                                                                                                                                                                                                                                                                                                                           EST 22-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                  Sarcoptes scable:
Sarcoptes scable:
Bukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Acari;
Acariformes; Sarcoptiformes; Astigmata; Psoroptidia; Sarcoptodas;
Sarcoptidae; Sarcoptes
1 (bases 1 to 600)
Ljunggren, B.L., Nilsson, D., Naslund, K. and Mattsson, J.G.
Expressed sequence tag analysis of the parasitic mite Sarcoptes
             AL108510 Drosophil
CA829999 3529 1 3
CB816450 3529 1 79
CK561781 rswpb0 00
CD326834 AGENCOÜRT
                                                                                                                                                                                                                          AK208166 Mus muscu
AI613789 vh98f10.y
AK195241 Mus muscu
AK199429 Mus muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: jens.mattsson@sva.se
Similar to pir|T17405 scavenger recept or cysteine-rich protein
precursor - sea urchin (Strongyloce ntrotus purpuratus).
Seq primer: T3 primer
                                                                                                                                                                                                                                                                                                                                                           600 bp mRNA linear EST 22-M
S.scabiei cDNA library Sarcoptes scabiei cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Matteson J.G.
Department of Parasitology (SWEPAR)
National Veterinary Institute
SE-751 89 Uppsala, Sweden
Tel: +46 18 674120
Pax: +46 18
                                                                                                                                                                                                                                                                                                  ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24.7%; Score 31.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seq primer: T3 primer
High quality sequence stop: 600.
Location/Qualifiers
            ESSU0253 S. scabiei cDNA LI
SAS0334 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                            BG817831
BG817831.1 GI:14188811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (2001)
720
11011
125
125
1396
1396
1396
1396
1397
137
437
4437
4437
485
1353
2311
2311
2311
282
                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bource
                                                                                                                                                                                                                                                                                                                                   RESULT 1
BG817831/c
                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
 ORIGIN
  0000
                                                                      000
                                                                                                             υυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BGB17831 ESSU0253
CX773853 UT-EH-HG0
CV949375 PVEPVD 13
CF927863 laf58f02.
CK279022 EST725100
BM522110 ESSU0647
AA517086 vh98f10.r
CN808355 Blood EST
AJ282728 4A3A-ĀBB-
AV745983 AV745983
CZ036908 OM BA0101
CV609497 zcm31a01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ba001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ESSU0825
ESSU0338
ESSU0327
                                                                             7, 2006, 11:55:06; Search time 1586.98 Seconds (without alignments) 3803.154 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ESSU0276
ESSU0284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ESSU0580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ESSU0771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ESSU0222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         zcn14a07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                     1 tgaccttctgctcgtagcga......tattccggactagttcagcg 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BM522043 BM522233 BM522233 BM522287 BG817916 BG817905 CV614668 BG817854 BG817854 BG817862 BG817862 B
                                                                                                                                                                                                                                        82156650
           GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                               41078325 segs, 23393541228 residues
                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                          US-10-782-899-1_COPY_472_600
129
                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                        - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CZ036908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BM522287
BG817916
BG817905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CV614668
BG817854
BG817862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BG817831
CX773853
CV949375
CF927863
CK279022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BM522110
AA517086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BM522233
BG817800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CN808355
AJ282728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AV745983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CV609497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BM522043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BM522137
                                                                                                                                                                           IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                gb_est3:*

gb_htc:*

gb_est4:*

gb_est6:*

gb_est7:*

gb_gss1:*

gb_gss2:*
                                                                                                                                                                                                                                                                                                                                                           gb_est1:*
gb_est2:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            932
429
938
199
676
                                                                                                                                                                                                                                                                                                                                              EST:*
                                                                                March
```

υυ

Score

Result Š. U υ υU ô

8 셤 ઠે 셤

```
Randall, T., Dwyer, R.A., Huttema, E., Beyer, K., Cvitanich, C., Randall, T., Dwyer, R.A., Huttema, E., Beyer, K., Cvitanich, C., Relfar, H., Fong, A.M., Gates, K., Roberts, S., Yatzkan, E., Gaffney, T., Law, M., Testa, A., Tortco-Alalibo, A., Zhang, M., Zhang, L., Mueller, E., Windass, J., Binder, A., Birch, P.R.J., Gisi, U., Govers, F., Gow, N.A., Mauch, F., van Weet, P., Waugh, M.E., Yu, J., Boller, T., Kamoun, S., Lam, S.T. and Judelban, H.S.

Lange-scale gene discovery in the oomycete Phytophthora infestans reveals likely components of phytopathogenicity shared with true
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CV949375 748 bp mRNA linear EST 25-JAN-2005 PVrpvb_13369 zoospores, purified Phytophthora infestans CDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62 GOTCGGGGGTCTTTTGTTGTGGTGCTGTGTGTTGTCCAACCGTATTATTCCGGACTA 121
                                                                                                                                                                                                                             339 ccercircaceredeseres arecelados de concarados de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidades de concaracidade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    145 GAACTTGACGTCCTCGCGACGACGCTTGGCGACGTACATCGTTGCGATTGAGCT 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dericegraacerecrecaedrecaecedaececrecaeceaecegaecegaarrecegaeceg 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                              Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; stramenopiles; Oomycetes; Pythiales; Pythiaceae;
Phytophthora.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 8; Length 748;
                                                  Length 786;
                                                                                                                                                                                                                                                                                                                                                279 GCCCGCCATGACGCTCTGCAGGCACCTGATGGCAATCCGCA 235
                                                                                                                                                                                                                                                                                                64 TCGGGGTCTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGTA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mol. Plant-Microbe Interact. 18 (3), 229-243 (2005)
                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Phytophthora infestans (potato late blight agent)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Phytophthora infestans"
/mol_type="mRNA"
/strain="88069"
/db_xref="taxon:47187"
                                                     DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone_lib="zoospores, purified"
/note="Vector: pSPORT1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                     24.3%; Score 31.4; D
56.2%; Pred. No. 24;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24.2%; Score 31.2; 1 53.2%; Pred. No. 27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Department of Plant Pathology
University of California
Webber Hall, Riverside, CA 92521,
Tel: 909 787 4199
Pax: 909 787 4294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: howard.judelson@ucr.edu
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GI:58139131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Phytophthora infestans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Judelson HS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66, Conservative
                                                                                                                  59; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CV949375.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTTC 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTAC 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15782637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CV949375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25
                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
CV949375/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CX773853 11near EST 25-JAN-2005 UI-EH-HGO-aaj-f-23-0-UI-SH-HGO Emiliania huxleyi cDNA clone UI-EH-HGO-aaj-f-23-0-UI 3', mRNA sequence.
                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: benco-goares@ulowa.edu

Tissue Procurement: Provasoli-Guillard National Center for Culture

Of Marine Phytoplankton (CCMP)

CDNA Library preparation: Dr. M. Bento Soares, University of Iowa

CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa

CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa

CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa

CLONE Distribution: Distribution information can be found at

http://genome.ulowa.edu/distribution/dinoflagellate.html

The following reperitive elements were found in this cDNA

sequence: 148-189, AGC_rich#Low_complexity (matched compliment)

Seq primer: M13 FORWARD

POLYA-Yes.
                                                                                                                                        423 GACCATGAGGACGTGCACATGTTCTCGGGCATGAACGACCACAAAGGAGCCCAATGAGAAT 364
                                                                                        Emiliania huxleyi
Emiliania huxleyi
Eukaryota; Haptophyceae; Isochrysidales; Emiliania.
1 (bases 1 to 786)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
                               Gaps
                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Phytoplankton (CCMP).
TAG TISSUE=Emiliania huxleyi coccolithophorid
TAG LIB=UI-EH-HG0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    University of Iowa
Tys Newton Road , 4156 MEBRF, Iowa City, IA 52242,
Tel: 319 335 8250
Fax: 319 335 9565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Soares, MB
Coordinated Laboratory for Computational Genomics
                               42; Indels
                                                                                                                                                                                                                 62 GGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTC 100
                                                                                                                                                                                                                                                       1. .786
/organism="Emiliania huxleyi"
/mol.type="mRNA"
/strain="CCMP 371"
Pred. No. 17;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAG_SEQ=GAAGGCTAGT"
                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CX773853.1 GI:58184206
57.6%;
Best Local Similarity 57.6
Matches 57; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8889548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CX773853
                            57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ROLLCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                               CX773853/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                   RESULT
```

ö

SOURCE

TITLE JOURNAL COMMENT

FEATURES

AUTHORS

REFERENCE

DEFINITION

RESULT 4 CF927863

ACCESSION

VERSION KEYWORDS

```
/clone="POABES"
// / Lissue="POABES"
// Lissue="POABES"
// Lissue="POABES"
// Lissue="POABES"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOTA"
// Lissue="DH10B-TOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      429 bp mRNA linear EST 19-FEB-2002 SASU0647 S.scabiei cDNA library Sarcoptes scabiei cDNA clone BMS-22110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Acari; Acariformes; Sarcoptiformes; Astigmata; Psoroptida; Sarcoptoldes; Sarcoptes.

1 (bases 1 to 429)

Ljungaren, B.L., Nilsson, D., Naslund, K. and Mattsson, J.G.

Expressed sequence tag analysis of the parasitic mite Sarcoptes
                                                                                                                                                                                                          of Arizona Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
   Generation of ESTs from abiotic stressed potato tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24.0%; Score 31; DB 7; Length 932; 57.9%; Pred. No. 33; tive 0; Mismatches 40; Indels
                            Unpublished (2003)
Contact: Robin Buell
The Institute for Genomic Research
9712 Medical Center Dr. Rockville, MD 20850, USA
Email: potato-arrayetigr.org
Clones can be requested from the University of Al
Institute via http://genome.arizona.edu/orders/
Seq primer: ATT TAG GTG ACA CTA TAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  784 GITGITGITGITGITGITGIAAITGATGITGITGI 750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65 CGGGGTCTTTTGTTGTGGTGCTGTGACGTGTTGT 99
                                                                                                                                                                                                                                                                                                                                                                              /organism="Solanum tuberosum"
/mol_type="makNA"
/cultivar="Kennebec"
/db_xref="taxon:4113"
                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone="POAE963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM522110.1 GI:18706032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 57.91
Best Local Si Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sarcoptes scablei
Sarcoptes scablei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BM522110/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
                                                                                                     CP927863 460 bp mRNA linear BST 12-NOV-2003
laf58f02.y1 SiEP Mus musculus cDNA 5' similar to TR:Q9UJZS Q9UJZ5
PRESENILIN-ASSOCIATED PROTEIN. ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 460),
Tidwell,R., Cliffon,S., Marra,M., Hillier,L., Pape,D., Martin,J.,
Wylie,T., Theising,B., Bowers,Y., Gibbons,M., Ritter,E., Bennet,J.,
Ronko,I., Tagazeishvili,R., Belaygorod,L., Grow,A., Maguire,L.,
Waterston,R. and Wilson,R.
Washu Stem cell BST Project
Unpublished (2002)
Contact: Jeff Gordon and Mike Lovett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CK279022 932 bp mRNA linear EST 03-AUG-2004 EST725100 potato abiotic stress cDNA library Solanum tuberosum cDNA clone POAE963 5' end, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Library materials provided by: Stappenbeck Th.S. and Gordon J.I.
Library constructed by: Korshunova Y. and Lovett M. DNA sequencing
Library constructed by: Korshunova Y. and Lovett M. DNA sequencing
on obtaining a clone please contact: Rose Tidwell
(rtidwell@genetics.wustl.edu)
Seq primer: -40RP from Gibco
High quality sequence stop: 460.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /notes="Vector: pAMP1; The library was synthesized with modified SMART primers with dUTP at the end. After treatment with UDG the cDNA was cloned in pAMP1 vector by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43 CAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTTGTCCA 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta; eudicotyledons, core eudicotyledons, asterids, lamides, Solanales, Solanaceae, Solanum.

( (Dases 1 to 932)

Buell, C.R., Hart, A., Zismann, V., Karamycheva, S.A. and Baker, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 CTATTAACCCTCACTAAAGGGGGGATGTTTTTTTGTGGGGGCTGTAACCTGCTGGCCC 66
                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Buarchontoglires, Glires, Rodentia,
Sciurognathi, Muroidea, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue type="small intestinal epithelial progenitors"
/lab host="DH5alpha Ultra Max cells (Invitrogen)"
/clone lib="SiEP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 460;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WashU, Human Genetics Division
Washington University School of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 31; DB 7;
Pred. No. 29;
0; Mismatches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .460
/organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     103 ACCGTATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Actroarcaric et actroarcació 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                            Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Solanum tuberosum (potato)
Solanum tuberosum
                                                                                                                                                                                                                                       CF927863.1 GI:38274486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CK279022.1 GI:39836000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                annealing."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   52; Conservative
                                                                                                                                                                                                                                                                                                                                                    Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CK279022
```

CK279022/c DEFINITION

RESULT

셤

ઠ

ACCESSION VERSION KEYWORDS SOURCE

Matches

셤

8

ORIGIN

ORGANISM

AUTHORS

REFERBNCE

ô

```
EST 27-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone_lib="Metarhizium anisopliae ARSEF 2575 from insect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTCCTGTGACGTGTTGTCCAACCGT 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Vector: pCMV.SPORT6.1; Metarhizium anisopliae was grown in insect haemolymph for 24 hours. A cDNA library was constructed in the vector pCMV.SPORT6.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Blood EST0439 Metarhizium anisopliae ARSEF 2575 from insect blood Metarhizium anisopliae cDNA clone B819 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wang, C.S., Hu, G. and St. Leger, R.J. Gene expression profiling of Metarhizium anisopliae grown under different conditions: mechanisms of fungal opportunism Unpublished (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
Hypocreomycetidas; Hypocreales; Clavicipitaceae; mitosporic
Clavicipitaceae; Metarhizium.
1 (bases 1 to 938)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Wang CS
Department of Entomology
University of Maryland
4112 and Sciences Building, College Park, MD 20742, USA
Email: cwang4@und.edu
Seg primer: M13 Reverse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 524;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 30.8; DB 1; Length 52 Pred. No. 35; 0; Mismatches 32; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l. .938
/organism="Metarhizium anisopliae"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                 /organism="Mus musculus"
/mol_type="mRNA"
/strain="C3H"
High quality sequence stop: 332.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                938 bp
                                                                                                                                  /db_xref="taxon:10090"
/clone="IMAGE:902347"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="mRNA"
/db_xref="taxon:5530"
/clone="B819"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arcaargccracracracracaca 117
                                                                                                                                                                              /cell_line="C2C12"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CN808355.1 GI:47729828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Metarhizium anisopliae
Metarhizium anisopliae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23.9%;
61.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CN808355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CN808355/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                      /clone="SASO777"
/clone lib="S.scabiei cDNA library"
/clone lib="S.scabiei cDNA library"
/note="The Sarcoptes scabiei mixed lifestage library was
/note="The Sarcoptes scabiei mixed lifestage library was
constructed by Jens G Mattsson. cDNAs were synthesized
from poly(A)+ RNA by oligo d(T) priming, size-selected and
directionally cloned into the Uni-ZAP lambda vector
(Stratagene). The primary library was amplified on
XLI-Blue MRP' cells."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA517086 524 bp mRNA linear EST 14-JUL-1997 vh98f10.rl Barstead mouse myotubes MPLRB5 Mus musculus cDNA clone IMAGE:902347 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Glires; Rodentia;
Botiurognathi; Muroidea; Muridae; Murinae; Mus
1 (bases 1 to 524)
Marram, H. Halliar, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T.,
Marram, M., Halliar, L., Allen, M., Martin, J., Morris, M.,
Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B.,
Theising, B., Wylle, T., Lennon, G., Soares, B., Wilson, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 GACCTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACGAT 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This clone is available royalty-free through LLNL , contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                Email: jens.mattsson@sva.se
Similar to gi 7495754 pir 119130 hypothetical protein C09F9.2
[Caenorhabditis elegans]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 3; Length 429;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 23.9%; Score 30.8; DB 3; Length 42 Best Local Similarity 57.1%; Pred. No. 33; Astches 56; Conservative 0; Mismatches 42; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTCGGGGTCTTTTGTTGTGGTGCTGTGACGTGTTGT 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMAGE Consortium (info@lmage.linl.gov) fo
MGI:523011
Seg primer: -28ml3 rev2 ET from Amersham
                                                                                                                                                                                                                                                                                                                                          /organism="Sarcoptes scabiei"
/mol_type="mRNA"
/db_xref="taxon:52283"
                  Unpublished (2001)
Contact: Mattsson J.G.
Contact: Mattsson J.G.
Department of Parasitology (SWEPAR)
National Veterinary Institute
SE-751 89 Uppsala, Sweden
Tel: +46 18 674120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Waterston, R.
The WashU-HHMI Mouse EST Project
Unpublished (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: mouseest@watson.wustl.edu
                                                                                                                                                                                                                                                                           High quality sequence stop: 429.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA517086.1 GI:2256675
                                                                                                                                                                                                                                                        Seg primer: T3 primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAS17086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                  FEATURES
                                                COMMENT
```

ORIGIN

셤

ò

셤

ઠે

ö

ò a ઠે g

```
Hominidae, Homo.

18. (Dasses 1 to 6/6)

19. (Dasses 1 to 6/6)

20. (Dasses 1 to 6/6)

30. (Dasses 1 to 6/6)

40. (Dasses 1 to 6/6)

50. (Dasses 1 to 6/6)

60. 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         790 bp DNA linear GSS 10-JAN-2005 OM Ba0016122.f OM Ba Oryza minuta genomic clone OM Ba0016122 5', genomic survey sequence.
                                             AV745983 APA Homo sapiens cDNA clone NPAAZGOB 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      435 gacciecricárda per cececece de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oryza minuta
Wukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzeae, Oryza,
Ehrhartoideae, Toyoeae, Oryza,
I (Dasea I to 790)
Kim, H., Collura, K., Wissotski, M., Byrne, M., Stum, D., Smart, D.,
Rao, K., Luo, M., Jetty, R., Kudrna, D., Muller, C., Soderlund, C. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone lib="NPA"
/note="Vector: pBluescript sk(-); Site_1: EcoRI; Site_2:
XhoI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62 GGTCGGGGTCTTTTTGTTGTGGTGCTGTGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     495 CCTCTGGGCACGTTTGTCTGTGTGCTGTAACCTGAAGTCAAACTTAAGATAATGGA 551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone is available at Shanghai Hematology Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chinese National Human Genome Center at Shanghai
351 Guo Shoujing Road, Zhangjiang Hi- Tech Park, Pudong.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23.7%; Score 30.6; DB 1; Length 676; 53.8%; Pred. No. 42; tive 0; Mismatches 54; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="pituitary"
/dev_stage="Adult"
/lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="NPAAZG08"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: mbshi@ms.stn.sh.cn
                                                                                                                      AV745983.2 GI:55951951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CZ036908.1 GI:57380375
                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 63; Conserva
                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oryza minuta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shanghai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSS.
                                                                         DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CZ036908/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
        AV745983
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4A3A-ABB-D-05-R Anopheles gambiae immune competent 4A3A Anopheles gambiae cpNA clone 4A3A-ABB-D-05, mRNA sequence.
                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                        330 TCTGGGCGGGGGGGTGCTTCCGGCGTTCCTGACGACAAAGTCGACGCCGTCTTGGAGT 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   184 IGGGAGCAATTTAACGCCGCACTACTAACGGTAACGGACCAACACGTAATGTCCCGGGGT 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dimopoulos, G., Casavant, T.L., Chang, S., Scheetz, T., Roberts, C., Donohue, M., Schultz, J., Benes, V., Bork, P., Ansorge, W., Soares, M.B. and Kafatos, F.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anopheles gambiae pilot gene discovery project: identification of mosquito innate immunity genes from expressed sequence tags generated from immune-competent cell lines Proc. Natl. Acad. Sci. U.S.A. 97 (12), 6619-6624 (2000) 10841561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota, Neoptera, Endopterygota, Diptera, Nematocera, Culicoidea, Culicidae, Anophelinae, Anophelisae, Anophelisae, Lt. 199)
                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72 TITITGTIGIGGIGCIGIGACGIGITGICCAACCGIATIATICCGGACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match

23.7%; Score 30.6; DB 1; Length 199;
Best Local Similarity 55.0%; Pred. No. 34;
Matches 60; Conservative 0; Mismatches 49; Indels 0
        Length 938;
                                                                             27; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Dimopoulos G
Fotis C. Kafatos laboratory
Tropean Molecular Biology Laboratory
Meyerhofstrasse 1, 69117 Heidelberg, Germany.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anopheles gambiae (African malaria mosquito)
Anopheles gambiae
        DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Anopheles gambiae"
    Score 30.8; DB
Pred. No. 38;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AJ282728
AJ282728.1 GI:6930607
EST.
        23.98;
                                                                                                                                                                                                                                                                                                                                                                                                270 AGATCTTGGGCTTG 257
                                                                                                                                                                                                                                                                                                                       67 GGTCTTTTTG 80
Query Match
Best Local Similarity 63.59
Matches 47; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
AJ282728/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
```

ö

ઠે 셤 Š ô

Gaps

ö

```
ESSUG674 S. scabiei cDNA library Sarcoptes scabiei cDNA clone SAS0807 5', mRNA sequence.
                                                                                                                                                                233 CGTAGAGAGTACGTCCTTGTTTTTGAGGGCATAGACAACATCCAGGGATGTGTCGGTCT 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa, Arthropoda; Chelicerata; Arachnida; Acari;
Acariformes; Sarcoptiformes; Astigmata; Psoroptidia; Sarcoptoldea;
Sarcoptidae; Sarcoptes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 494)
Ljunggren, E.L., Nilsson, D., Naslund, K. and Mattsson, J.G.
Expressed sequence tag analysis of the parasitic mite Sarcoptes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                135 gaccarcadeacerecerenterrerececereaceaceaceaceaceaceaceareacear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: jens.mattsson@sva.se
Similar to gi|7506864|pir|T24294 hypothetical protein T01D3.3b
[Caenorhabditis elegans]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 GACCTICIGCICGIAGCGAITACTICGAGCATTACTGACGACAAAGACCCCGACCGAGAT
                                                                                                                            23.4%; Score 30.2; DB 3; Length 494; llarity 56.6%; Pred. No. 54; Conservative 0; Mismatches 43; Indels (
                                                         Length 244;
                                                                                             28; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62 GGTCGGGGTCTTTTGTTGTGTGCTGTGACGTGTTGTC 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75 GTTTAGGGCATCTGTGGTGAGGTCTTTTGCAATGTCTTC 37
Histoplasma G217B cDNA library."
                                                         7;
                                                         03
                                                       Score 30.2; DB Pred. No. 48; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Mattisson J.G.
Department of Parasitology (SWEPAR)
National Veterinary Institute
SE-751 89 Uppsala, Sweden
Tel: +46 18 674120
Pax: +46 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             High quality sequence stop: 494.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                       BM522137.1 GI:18706191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seq primer: T3 primer
                                                       ch 23.4%;
1 Similarity 62.7%;
47; Conservative
                                                                                                                                                                                                                                   173 TTCTCTTGTCGTGCT 159
                                                                                                                                                                                                             73 TTTTGTTGTGCT 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sarcoptes scabiei
Sarcoptes scabiei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
56; Conserva
                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    scabiei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S:
Matches 56
                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                           RESULT 13
BM522137/c
                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                        셤
                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                   셤
                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cortact: Vincent Magrini
Mardis/Goldman/Sil Genomic Resources for Histoplasma Sequencing
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
Tel: 314 286 1810
Fax: 314 286 1810
Email: vmagrini@watson.wustl.edu
Contact Vincent Magrini (vmagrini@watson.wustl.edu) for further
information relating to organism, libraries, or clone availability.
Seq primer: H7cDNA, F2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CV609497 22-OCT-2004 cmRNA linear EST 22-OCT-2004 zcm31a01.y2 F_HC7CDNA Ajellomyces capsulatus cDNA 5', mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  42 ACAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGTGCTGTGACGTGTTGTCC 101
               OMAP (Oryza Map Alignment Project) - Arizona Genomics Institute Unpublished (2005)
Contact: Rod A. Wing
Arizona Genomics Institute
University of Arizona
Forbes Building Room 303, Tucson, AZ 85721-0036, USA
Tel: 520 626 9595
Fax: 520 621 1259
Fax: 520 621 1259
Fax: 520 621 1259
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ajellomyces capsulatus
Ajellomyces capsulatus
Ajellomyces capsulatus
Bukaryota; Pungi; Ascomycota; Pezizomycotina; Burotiomycetes;
Onygenales; Ajellomycetaccae; Ajellomyces.

(bases 1 to 244)
Magrini,V., Sil,A., Goldman,W. and Mardis,R.
Genomic Resources for Histoplasma Sequencing Mardis/WashU
Unpublished (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db xref="taxon:5037"
/clone lib="F HC7CDNA"
/note="Vector: pAS209; Site_1: Not1; Site_2: Sal1;
                                                                                                                                                                                                                                                                                                                            /clone="OW Ba0016I22"
/tissue_type="leaves"
/lab host="DH108"
/clone_lib="OM_Ba"
/note="Vector: pCUGIBAC1; Site_1: HindIII; Site_2:
HindIII"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 790;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .244
.crganism="Ajellomyces capsulatus"
/mol_type="mRNA"
/strain="G217B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 30.6; DB 10;
Pred. No. 43;
0; Mismatches 34;
                                                                                                                                                                                                                                                   1. 790
/organism="Oryza minuta"
/mol_type="genomic DNA"
/db_xref="taxon:63629"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         102 AACCGTATTATTCCGGACTAGTTCA 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           450 AACTGTATAAATAAGTGGAATTTAA 426
                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CV609497
CV609497.1 GI:54597079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 23.7%;
Similarity 60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  seguence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Simi
Matches 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
CV609497/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
```

δ 셤 ò 셤 ö

ö

16

```
1.539
/organism="Sarcoptes scabiei"
/mol_type="manA"
/db xref="taxon:52283"
/clone="SAS0908"
/clone="SAS0908"
/clone="Lb="S.scabiei cDNA library"
/note="The Sarcoptes scabiei mixed lifestage library was
/note="The Sarcoptes scabiei mixed lifestage library was
/note="The Sarcoptes scabiei mixed lifestage library was
/note="The Sarcoptes scabiei mixed lifestage library was
/note="The Sarcoptes scabiei mixed lifestage library was
/note="The Sarcoptes scabiei mixed library was
/note="The Sarcoptes scabiei"
// Internationally cloned into the Uni-ZAP lambda vector
// Sarcapagene) The primary library was amplified on
XLI-Blue MRF' cells."
                     L Unpublished (2001)
Contact: Mattsson J.G.
Contact: Mattsson J.G.
Contact: Mattsson J.G.
Contact: Mattsson J.G.
Department of Parasitology (SWEPAR)
National Veterinary Institute
SE-751 89 Uppsala, Sweden
Tel: +46 18
Fax: +46 18
Fax: +46 18
Fax: +46 18
Fax: +46 18
Fax: +46 18
Fax: +512096|pir|T17405 scavenger receptor cysteine-rich
protein precursor - sea urchin [Strongylocentrotus purpuratus]
Seq primer: T3 primer
High quality sequence stop: 539.
High quality sequence stop: 539.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               402 GACCATGAGGACGTGCACATGTTCTCGGGCATGAACGACCACAAGGAGGCCCAATGAGAAT 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 GACCTICIGCICGIAGCGATTACTICGAGCATTACIGACGACAAAGACCCCGGACCGAGAŢ 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23.4%; Score 30.2; DB 3; Length 539; 56.6%; Pred. No. 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62 GETCGGGGTCTTTTTGTTGTGTGTGTGACGTGTTGTC 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         342 griradescarcieresidadesicririscaaisicric 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7, 2006, 13:19:43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: March
Job time : 1595.98 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
scabiei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                        source
                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone lib="S.scabiel cDNA library"
/clone lib="S.scabiel cDNA library was
/chote="The Sarcoptes scabied mixed lifestage library was
/chote-"The Sarcoptes scabied mixed
from poly(A) + RNA by oligo d(T) priming, size-selected and
directionally cloned into the Uni-ZAP lambda vector
(Stratagene). The primary library was amplified on
XLI-Blue MRP' cells."
                                                      BM522043 528 bp mRNA linear EST 19-FEB-2002 ESSU0580 S.scabiei cDNA library Sarcoptes scabiei cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM522233 539 bp mRNA linear EST 19-FEB-2002
ESSU0771 S.scabiei cDNA library Sarcoptes scabiei cDNA clone
                                                                                                                                                                                                                                  Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Acari; Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Sarcoptiolea; Sarcoptidae; Sarcoptes.

1 (bases 1 to 528)
1 (bases 1 to 528)
1 inggren, B.L., Nilsson, D., Naslund, K. and Mattsson, J.G.
Expressed sequence tag analysis of the parasitic mite Sarcoptes scabiei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sarcoptes scablei
Bukaryota, Metazoa, Arthropoda, Chelicerata, Arachnida, Acari;
Bukaryota, Metazoa, Arthropoda, Chelicerata, Arachnida, Sarcoptoidea,
Sarcoptidae, Sarcoptes.
1 (bases 1 to 539)
Ljunggren, E.L., Nilsson, D., Naslund, K. and Mattsson, J.G.
Expressed sequence tag analysis of the parasitic mite Sarcoptes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              387 GACCATGAGGACGTGCACATGTTCTCGGGCATGAACGACCACAAGGAGCCCAATGAGAAT 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: jens.mattsson@sva.se
Similar to gi|7512096|pir|717405 scavenger receptor cysteine-rich
protein precursor - sea urchin [Strongylocentrotus purpuratus]
Seg primer: T3 prime
Seg primer: T3 sequence stop: 528.
High quality sequence stop: 528.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 3; Length 528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTCGGGGTCTTTTTGTGTGGTGCTGTGACGTGTTGTC 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gritadecarcicidicacidaderritacaarcicric 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .528
/organism="Sarcoptes scabiei"
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Matteson J.G.
Department of Parasitology (SWEPAR)
National Veterinary Institute
SE-751 89 Uppaala, Sweden
Tel: +46 18 674120
Fax: +46 18
Email: jens.mattsson@sva.se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
23.4%; Score 30.2; DE
Best Local Similarity 56.6%; Pred. No. 55;
Matches 56; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/db_xref="taxon:52283"
/clone="SAS0706"
                                                                                                          SAS0706 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SAS0908 5', mRNA sequence.
                                                                                                                                BMS22043
BMS22043.1 GI:18705601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM522233.1 GI:18706995
                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished (2001)
                                                                                                                                                                                                            Sarcoptes scabiei
Sarcoptes scabiei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sarcoptes scabiei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62
                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BM522233/c
LOCUS
                              BM522043/c
                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
     RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

ö

Gape

ô

43; Indels

This Page Blank (uspto)

```
NUMBER OF SEQUENCES: 5206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                              RESULT 1
US-09-583-110-1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-107-433-306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
                            0000000
                                                                                                                               0000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1324, Ap
Sequence 15584, A
Sequence 15584, A
Sequence 68059, A
Sequence 2241, Ap
Sequence 2311, Ap
Sequence 211, Ap
Sequence 11705, A
Sequence 1505, A
Sequence 1500, A
Sequence 15432,
Sequence 15300, A
Sequence 15300, A
Sequence 15300, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  143314,
143485,
1, Appli
7, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 12362, A
                                                                                        (without alignments)
2535.988 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                        March 7, 2006, 11:56:56; Search time 90.4206 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1
Sequence 2
Sequence 1
Sequence 2
Sequence 1
Sequence 1
                                                                                                                                                        1 tgaccttctgctcgtagcga......tattccggactagttcagcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
5.1.7
Biocceleration Ltd.
                                                                                                                                                                                                                                                  2606114
                                                                                                                                                                                                                                                                                                                                                                | Issued_Patents NA:*
| Cgm2_6/prodata/1/ina/2_COMB.seq:*
| Cgm2_6/prodata/1/ina/6_COMB.seq:*
| Cgm2_6/prodata/1/ina/6_COMB.seq:*
| Cgm2_6/prodata/1/ina/6_COMB.seq:*
| Cgm2_6/prodata/1/ina/B_COMB.seq:*
| Cgm2_6/prodata/1/ina/P_COMB.seq:*
| Cgm2_6/prodata/1/ina/PP_COMB.seq:*
| Cgm2_6/prodata/1/ina/PP_COMB.seq:*
| Cgm2_6/prodata/1/ina/PP_COMB.seq:*
| Cgm2_6/prodata/1/ina/PB_COMB.seq:*
| Cgm2_6/prodata/1/ina/RB_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-107-413-305
US-09-949-016-15584
US-09-949-016-15584
US-09-249-016-13747
US-09-252-991A-2602
US-09-252-991A-2241
US-09-252-991A-2241
US-09-270-767-13705
US-10-144-929-56
US-09-949-016-15300
US-09-949-016-15300
US-09-949-016-13314
US-09-949-016-143314
US-09-949-016-143314
US-09-949-016-143485
US-09-949-016-143485
US-09-949-016-143485
US-09-949-016-143485
US-09-949-016-143485
US-09-949-016-143485
US-09-949-016-143485
US-09-949-016-143485
US-09-949-016-143485
US-09-949-016-143485
US-09-565-177A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-672-850-10
US-09-565-177A-10
US-09-949-016-12362
                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                       1303057 segs, 888780828 residues
GenCore version
Copyright (c) 1993 - 2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                         US-10-782-899-1_COPY_472_600
129
                                                                                                                                                                                                                                                                                                              Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                nucleic search, using sw model
                                                                                                                                                                               IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                         length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1146
2184
2868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          139552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1001
1001
85912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    264665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194915
                                                                                                                                                                                                                                                                                                               Post-processing:
                                                                                                                                                                                                                                                                          seq
seq
                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                OM nucleic
                                                                                                                                                        Sequence:
                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                         Minimum I
Maximum I
                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                            Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
No.
```

00000000000

```
GENERAL INFORMATION:

JENERAL INFORMATION:

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FOR DIAGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Artacadararcaacaaggerraceraaregregreacerricrerreaggeses
                                                                                                                                                                                                                                                                                                                                                           12373, A
1, Appli
5, Appli
5, Appli
5, Appli
5, Appli
                                                                                                                                              Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                            Appl
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10, Appi
1, Appii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1215, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 306, Application US/09107433

Patent No. 6800744

GENERAL INFORMATION:
APPLICANT: Lynn A Doucette-Stamm and David Bush
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID
SEQUENCES RELATING TO STREPTOCOCCUS PNEUMONIAE
THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            32 ATTACTGACGACAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTGCTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapa
                                                                                                                                              Sequence Sequence Sequence Sequence
                                                                                                                                                                                                                                                                                     Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1
Sequence 1
Sequence 1
Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                           Sequence
                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22.8%; Score 29.4; DB 3; Length 870; 58.6%; Pred. No. 1.2;
US-09-949-016-16109
US-09-949-016-15781
US-09-949-016-15788
US-09-934-901-7
US-10-321-868-17
US-10-320-874-7
US-10-320-924-7
US-10-320-924-7
US-10-320-924-7
US-08-96-922-1
US-08-95-948-1215
US-08-951-98-95-991-10
US-08-956-991-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cerecitrificerecireatraceda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Streptococcus pneumoniae US-09-583-110-1324
20.3 85913
20.3 120727
20.2 1074
20.2 1074
20.2 1074
20.2 1074
20.2 1074
20.2 336024
20.0 2262
20.0 2262
20.0 2262
20.0 2262
20.0 2262
20.0 2262
19.8 6413
19.8 6604
19.8 46115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51; Conservative
```

ô

0; Gaps

DB 3; Length 194915;

```
US-09-949-016-68059

Sequence 68059, Application US/09949016

Sequence 68059, Application US/09949016

Sequence 68059, Application US/09949016

Sequence 68059, Application US/09949016

GENERAL INFORMATION:

APPLICANT: VEWTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

TURENT FILING DATE: 2000-00-014, 755

PRIOR FILING DATE: 2000-00-01-03

PRIOR PELING DATE: 2000-10-03

PRIOR PELING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastERQ for Windows Version 4.0

SEQ ID NO 68059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  115691 AGAAACTCACCACTTGAGACAAAAGTGAACTCTTTGTTGTGGGCTATGTGGTCTTGGCA 115750
                                                                                                                                                                                                                                                                                                                 22.8%; Score 29.4; DB 3; Length 1:
60.8%; Pred. No. 11;
tive 0; Mismatches 31; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      42 ACAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTGC
                      NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83 GIGCIGIGACGIGITGICCAACCGI 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90 ritricacacceaercicercrer 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  115751 GÁGGTTTGTTTTCCGGTCT 115769
                                                                                                                                                                                                                     ; LOCATION: (1)...(194915)
; OTHER INFORMATION: n = A,T,C or G
US-09-949-016-15584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     102 AACCGTATTATTCCGGACT 120
                                                                                                                                                                                                                                                                                                            Ouery Match
Best Local Similarity 60.87
Matches 48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                     PEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 50; Conserv
  PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Human
                                                                                                                       TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-68059
                                                                    SEQ ID NO 15584
LENGTH: 194915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 15584, Application US/09949016

Batent No. 6812339
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION:
TITLE OF INVENTION:
WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
FURE REPERENCE: CLOO1007
CURRENT APPLICATION NUMBER: 60/241,455
PRIOR PILING DATE: 2000-10-20
PRIOR PLING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR PLING DATE: 2000-10-03
PRIOR PLING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       32 ATTACTGACGACAAAGACCCCGACCGAGATGGTCGGGGGTCTTTTTGTTGTGGTGCTGTGT 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 22.8%; Score 29.4; DB 3; Length 885; Best Local Similarity 58.6%; Pred. No. 1.2; Matches 51; Conservative 0; Mismatches 36; Indels
CORRESPONDENCE ADDRESS:
ADDRESSEE: GENOME THERAPEUTICS CORPORATION
STREET: 100 Beaver Street
CITY: Waltham
                                                                                                                                                                COMPUTER READBLE FORM:
MEDIUM TYPE: CD/ROM ISO9660
COMPUTER: -CUNKNOWN:
OPERATING SYSTEM: -UNKNOWN:
SOFTWARE: -UNKNOWN:
CURRENT APPLICATION DATA:
FILING DATE: 30-Jun-1998
PRIOR APPLICATION NUMBER: 60/085131
FILING DATE: 312, 1998
APPLICATION NUMBER: 60/085131
FILING DATE: 312, 1998
APPLICATION NUMBER: 60/05153
FILING DATE: JUY 2, 1997
ATTORNEY/AGENT THORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Streptococcus pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Ariniello, Pamela Deneke
REGISTRATION NUMBER: 40,489
REFERENCE/DOCKET NUMBER: GTC-011
TELECOMUNICATION INFORMATION:
TELEFAX: (781)893-5007
TELEFAX: (781)893-8277
INFORMATION FOR SEQ ID NO: 306:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc feature
LOCATION: (B) LOCATION 1...885
SEQUENCE DESCRIPTION: SEQ ID NO: 306:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92 CGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    664 cérécirirecerecirecaiaceda 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 885 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: circular
MOLECULE TYPE: DNA (genomic)
                                                                                                STATE: Massachusetts
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-949-016-15584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-107-433-306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
Sequence 13747, Application US/09949016
; Retent No. 681239
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
                                                             ö
                                                                                                                                                                 30 Actectadeatracadectreaeccaccadeccadeccadaccretrerretres 89
                                                                Gape
                                                                                                                       23 ACTICGAGCALTACTGACGACAAAGACCCCGACCGAGATGGICGGGGTCT
22.5%; Score 29; DB 3; Length 601; 58.8%; Pred. No. 1.4;
                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-949-016-13747
```

```
Sequence 2311, Application US/09252991A
Faceta No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
FRIOR APPLICATION NUMBER: US 60/074,788
FRIOR APPLICATION NUMBER: US 60/094,190
FRIOR APPLICATION NUMBER: US 60/094,190
FRIOR PILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1538 Accarcaagacccrosccoaacrcososroarcricorgarorroroscorcosccrosas 1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1177 ACGATCAAGACCCTGGCCGAACTCGGGGTGATCTTCCTGATGTTCTGCCTCGGCCTGGAG 1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39 ACGACAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGTGCTGTGAGGTGTTG 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39 ACGACAAAGACCCCGACCGAGGTGGTCGGGGTCTTTTTGTTGTGGGTGCTGTGACGTGTTG 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 2184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2868;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        39, Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 22.2%; Score 28.6; DB 3;
1. Similarity 57.1%; Pred. No. 3.8;
52; Conservative 0; Mismatches 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 28.6; DB 3;
Pred. No. 3.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1598 TrcAgccrgcgcAagcrcrrccAggrcgccg 1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1237 TrcAgccrgcgaAgcrcrrccAggrcgccc 1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99 TCCAACCGTATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99 TCCAACCGTATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18
                                1999-02-18
BER: US 60/074,788
                                    CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 2241
LENGTH: 2184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-602-359A-31
; Sequence 31, Application US/08602359A
; Patent No. 5942430
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ROBERTSON, Daniel E. MURPHY, Dennis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: DNA
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-2311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REID, John
MAFFIA, Anthony
LINK, Steven
SWANSON, Ronald V.
WARREN, Patrick V.
                                                                                                                                                                                                                                                                                                                                                                                ) ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 22.2%;
Best Local Similarity 57.1%;
Matches 52; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-252-991A-2311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2602, Application US/0925291A
Sequence 2602, Application US/0925291A
Sequence 2602, Application US/0925291A
Setent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR PLILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 2602
LENGTH: 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2241, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OP INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OP INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          906 ACGATCAAGACCCTGGCCGAACTCGGGGTGATCTTCCTGATGTTCTGCCTCGGCCTGGAG 847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23 ACTTCGAGCATTACTGACGACAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTG 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 29; DB 3; Length 264665;
Pred. No. 17;
0; Mismatches 35; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 28.6; DB 3; Length 1146;
Pred. No. 2.6;
0; Mismatches 39; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCAACCGTATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             846 TTCAGCCTGCGCAAGCTCTTCCAGGTCGGCG 816
                            CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR PLING DATE: 2000-10-20
PRIOR PELING DATE: 2000-10-20
PRIOR PELING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: PASESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53041 Trrridadacedarcrererer 53065
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83 GTGCTGTGACGTGTTGTCCAACCGT 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22.5%;
58.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 22.2%;
Best Local Similarity 57.1%;
Matches 52; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 58.00
المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المال
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-252-991A-2602/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -09-252-991A-2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-949-016-13747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-252-991A-2602
                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 13747
LENGTH: 264665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
```

ò 셤 ઠે g ô

ઠ 셤 ઠે g

```
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: SITE
LOCATION: (1636)
OTHER INFORMATION: n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (28)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: SITE
                                                                                                                                                                                                              US-10-144-929-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                쇰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                   셤
                                                                                   ò
                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        718 GACCTTGAGAACCTACCTCCTGCTGATCATAACCGCCGAATACGACCGCTGAGAGAT 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 GACCTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGGACCGAGGT 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: U5/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver: 2.0
SEQ ID NO 13705
LENGTH: 1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 21.2%; Score 27.4; DB 3; Length 1160; Best Local Similarity 54.5%; Pred. No. 7.2; Matches 55; Conservative 0; Mismatches 46; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2; Length 936;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         daaggagagrirircggggagargcrigagagag 811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
22.0%; Score 28.4; DE
Best Local Similarity 56.4%; Pred. No. 2.8;
Matches 53; Conservative 0; Mismatches
                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: FISH & RICHARDSON P.C.
STREET: 4225 EXECUTIVE SQUARE, STE 1400
                                                                                                                                                                                                                                                                 COMPUTER: 118M PS/2

OPERATING SYSTEM: MS-DOS

SOFTWARE: WORD PERFECT 6.0

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08 602,359A
FILING DATE: February 16, 1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
APPLICATION NUMBER:
ATTORNEY AGENT INFORMATION:
NAME: HALLE, LISA A.
REGISTRATION NUMBER: 38,347
REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 09010/010001
TELECOMUNICATION INFORMATION:
TELECHONE: 619-679-5099
INFORMATION FOR SEQ ID NO: 31:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100010/01060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 13705, Application US/09270767
Patent No. 6703491
GENERAL INFORMATION:
                                                                                                                        CITY: LA JOLLA
STATE: CALIFORNIA
COUNTRY: USA
ZIP: 92037
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
COMPUTER: IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Drosophila melanogaster US-09-270-767-13705
APPLICANT: KOSMOTKA, Anna
TITLE OF INVENTION: ESTERASES
NUMBER OF SEQUENCES: 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: LINEAR

MOLECULE TYPE: GENOMIC DNA
US-08-602-359A-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : 936 NUCLEOTIDES
NUCLEIC ACID
EDNESS: SINGLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTCGGGGTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-270-767-13705/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
```

```
18-09-949-016-125432/c

| Sequence 125422, Application US/09949016
| Patent No. 6812339
| General Information
| Application US/09949016
| TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
| TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
| FILE REPERENCE: CLO01307
| CURRENT APPLICATION NUMBER: US/09/949,016
| CURRENT PILING DATE: 2000-04-14
| PRIOR PILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              718 crecresesárrerreserrasárraárcererereseseses refeseserrereses 777
                                          656 ccarrircasgregregeriaarrecarecarecrigreraraaseeeregaaerrearee 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24 CTTCGAGCATTACTGACGACAAAAGACCCCGACCGAGATGGTCGGGGGTCTTTTTGTTGTTGTGG 83
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 27.4; DB 3; Length 1951;
Pred. No. 8.9;
0; Mismatches 46; Indels 0
                                                                                                                                                596 GCTTGTTCACTTTGTAGGCCTGCACTGTGTTCTTGAAC 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     84 TGCTGTGACGTGTTGTCCAACCGTATTATTCCGGACTAGTT 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     778 gecreraktriecresceatrearearectraceres 818
                                                                                                 64 TCGGGGTCTTTTGTTGTGTGCTGTGACGTGTTGTCCAAC 104
                                                                                                                                                                                                                                                            Sequence 56, Application US/10144929

Sequence 56, Application US/10144929

Patent No. 6881823

GENERAL INFORMATION:

TITLE OF INVENTION: 70 Human Secreted Proteins
FILE REFERENCE: PZ014P1

CURRENT APPLICATION NUMBER: US/10/144,929

CURRENT FILING DATE: 1999-05-15

PRIOR FILING DATE: 1999-02-17

PRIOR FILING DATE: 1999-02-17

PRIOR FILING DATE: 1998-08-18

NUMBER OF SEQ ID NOS: 257

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 56

INNOTH: 1951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PEATURE:
NAME/KEY: SITE
LOCATION: (1951)
CTHER INFORMATION: n equals a,t,g, or c
US-10-144-929-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
NAME/KEY: SITE
LOCATION: (1947)
OTHER INFORMATION: n equals a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     n equals a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 54.5'
```

ઠે 셤

```
US-09-949-016-143314/C

i GS-09-949-016-143314/C

i Sequence 143314, Application US/09949016

i Patent No. 681239

i GENERAL INFORMATION:

i APPLICANT: WITHER, J. Craig et al.

i TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

I TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

I TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

I TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

I TITLE OF INVENTION NUMBER: 60/241, 755

PRIOR PELING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/231, 768

PRIOR PELING DATE: 2000-10-09

PRIOR APPLICATION NUMBER: 60/231, 498

PRIOR PELING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FRANCESEQ FOR Windows Version 4.0

SEQ ID NO 143314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5137 rcingiccicgigarinnigagggccingargactrcrgagaacrcgrcrgagarcrca 5078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291 AGCTTCTCTGACACCCACGCCCACACACTTTGGTTGGGTGCCCTGTCCCCAGATCCTG 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29 AGCATTACTGACGACAAAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTTGTGGTGCTG 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 14707;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 20.5%; Score 26.4; DB 3; Length 1 Best Local Similarity 54.0%; Pred. No. 47; Matches 54; Conservative 0; Mismatches 46; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67 GGGTCTTTTTGTTGTGGTGTGTGTGTTGTCCAACCG 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20.3%; Score 26.2; D
58.2%; Pred. No. 15;
:ive 0; Mismatches
OPERATING SYSTEM: MS DOS version 6.2, OPERATING SYSTEM: Windows version 3.11 SOPTWARE: Mord for Windows version 2.0 SOFTWARE: an ASCI file CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/312,762A
                                                                                                                                                                               CLASSIPCATION:
PRIOR APPLICATION:
APPLICATION NUMBER: 09/026,898
FILING DATE: 20 FEB 1998
ATTORNEY/AGENT INFORMATION:
NAME: Priedman, Mark M.
REGISTRATION NUMBER: 33,883
REPERENCE/DOCKET NUMBER: 916/10
TELEPHONE: 972-3-562553
TELEPHONE: 972-3-5625553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TOPOLOGY: linear
US-09-312-762A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Human
US-09-949-016-143314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 15300, Application US/09949016
Fatent No. 6812339
GENERAL INFORMATION:
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLO01307
CURRENT APPLICATION NUMBER: 60/241,755
FRIOR PRILING DATE: 2000-10-20
FRIOR PRILING DATE: 2000-10-03
FRIOR PRILING DATE: 2000-10-03
FRIOR PRILING DATE: 2000-10-03
FRIOR PRILING DATE: 2000-10-03
FRIOR PRILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FREESO for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80719 AAAGCCTCTGATTGAGATGAGGAAGCTCTTCTACCTCTGGAGCTGTAAGGTCTTGTC 80775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44 AAAGACCCCGACCCGAGATGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTTGTT 100
                                                                                                                                                                                                                                                                                                                                                                                                                                44 AAAGACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTC 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 407 AAAGCCTCTGATTGAGATGAGGAAGGTCTTCTACCTCTGGAGCTGTAAGGTCTTGTC 351
                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 20.6%; Score 26.6; DB 3; Length 139552; Best Local Similarity 66.7%; Pred. No. 99; Matches 38; Conservative 0; Mismatches 19; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: MIA HOROWITZ ET AL.
TITLE OF INVENTION: EH DOMAIN CONTAINING GENES AND PROTEINS
NUMBER OF SEQUENCES: 27
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                  Score 26.6; DB 3; Length 601;
Pred. No. 11;
0; Mismatches 19; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Mark M. Friedman c/o Anthony Castorina STREET: 2001 Jefferson Davis Highway, Suite 207 CITY: Arlington STATE: Virginia COUNTRY: United States of America ZIP: 22202 COMPUTER READBLE FORM: MEDIUM TYPE: 1.44 megabyte, 3.5" microdisk COMPUTER: Twinhead* Slimnote-890TX
                              PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 125432
LENGTH: 601
        PRIOR APPLICATION NUMBER: 60/237,768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application US/09312762A Patent No. 6552177
                                                                                                                                                                                                                                                                                                                        20.6%;
                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 66.74
Matches 38; Conservative
                                                                                                                                                                                                                                        ; ORGANISM: Human
US-09-949-016-125432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-15300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-949-016-15300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
US-09-312-762A-3/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 15300
LENGTH: 139552
                                                                                                                                                                                                                     DNA
```

ò 셤

ö

ö

Gapa

TGACGTGTTGTCCAACCGT
89
ò

g

Search completed: March 7, 2006, 14:11:48 Job time : 93.4206 secs

```
; Sequence 1, Application US/10928446A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
US-10-928-446A-1
                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
00000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 185, App
Sequence 187, App
Sequence 191, App
Sequence 191, App
Sequence 193, App
Sequence 195, App
Sequence 199, App
Sequence 199, App
Sequence 201, App
Sequence 201, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 98, Appl
Sequence 35, Appl
Sequence 1241, Ap
Sequence 43, Appl
Sequence 43, Appl
Sequence 13, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 56, Appl
Sequence 1, Appli
Sequence 181, App
Sequence 183, App
                                                                                                                (without alignments)
237.125 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                         1 tgaccttctgctcgtagcga......tattccggactagttcagcg 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                                                                                                                           /cgn2_6/ptodata/1/pubpia/USOB_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/USO9_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/USO9_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/USO9_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/USO1_NEW_PUB.seq:*
            GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                 March 7, 2006, 12:18:50 ; Search time 1192.75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-955-054A-98
US-11-072-175-35
US-11-000-688-1241
US-10-973-115B-43
US-10-131-826A-43
US-09-925-065A-108531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-928-446A-1
US-10-928-446A-181
US-10-928-446A-183
US-10-928-446A-185
US-10-928-446A-187
US-10-928-446A-191
US-10-928-446A-193
US-10-928-446A-197
US-10-928-446A-197
US-10-928-446A-199
US-10-928-446A-201
US-10-928-446A-201
                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                 7218535 segs, 1096242582 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                Published Applications NA New:*
                                                                                                                                                     US-10-782-899-1_COPY_472_600
129
                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                     - nucleic search, using sw model
                                                                                                                                                                                                                    IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080000
1080000
1080000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080000
1080000
1080000
1080000
1080000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        080000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27.6
27.4
27.4
26.4
                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28.8
27.6
                                                                     OM nucleic
                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        211111111
2111111111
21111111111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0 0 0
```

```
US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-56

US-11-114-798-68-78

US-11-114-798-78

US-11-11-11-78

US-11-11-11-78

US-11-11-78

US-11-78

US-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70115 AĞCAGTTCACTTGAĞACTTTCTCACĞGAAĞAĞTĞĞATACAĞTTĞĞTĞĞTAĞTÇTTAT 70174
                                Sequence 694722,
Sequence 28315, A
Sequence 28315, A
Sequence 684535,
Sequence 1368, Ap
Sequence 5010, Ap
Sequence 5010, Ap
                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 7532, Ap
Sequence 3436, Ap
Sequence 84896, A
Sequence 81196, A
Sequence 5006, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                       Sequence 49, Appl
Sequence 58, Appl
Sequence 663286,
Sequence 663287,
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 84896, A
Sequence 81196, A
Sequence 509127,
Sequence 476394,
Sequence 251626,
Sequence 770926,
Sequence 40094, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: nucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9; Length 185750;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70175 ATTTGCTACGTGCTCATGTGTTGTCTGATAGAATGCAG 70215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76 TGTTGTGGTGTGTGTGTCCAACCGTATTATTCCG 116
US-09-925-065A-694721

US-09-925-065A-694722

US-10-750-185-28115

US-10-750-623-28115

US-09-925-065A-684335

US-09-925-065A-684335

US-11-128-061-1368

US-11-128-061-5010

2 US-11-128-049-5010

US-11-14-798-6

US-11-114-798-7

US-09-925-065A-663287

US-09-925-065A-663287

US-09-925-065A-63287

US-09-925-065A-63287

US-09-925-065A-63287
                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-925-065A-84996
US-09-925-065A-81196
US-09-925-065A-81196
US-09-925-065A-476394
US-09-925-065A-476394
US-09-925-065A-251626
US-09-925-065A-770926
US-10-750-185-40094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22.5%; Score 29; DB 55.4%; Pred. No. 7.9; ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALIGNMENTS
                                                                                                                                                                         TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 55.4 tes 56; Conservative
  20.5 1223
20.5 1223
20.5 2499
20.3 495
20.3 495
20.3 495
20.3 121736
20.3 121736
20.2 1025
20.2 1617
20.2 1617
20.2 1617
20.2 1617
20.2 1617
20.2 1617
20.2 1617
20.2 1617
20.3 1848
20.2 1617
20.2 1617
20.2 1617
20.3 1808
19.8 560
19.7 443
```

ŗ

Ď

à

ò

ŗ

ģ

ģ

ŗ

à

```
NAME/KEY: allele
LOCATION: (1047378)
OTHER INFORMATION: the 'n' at position 1047378 may be 'c' or 't'
FEATURE: Allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or 't'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                         ö
                                                                                                             ö
                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                            or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: allele
LOCATION: (1026786)
OTHER INFORMATION: the 'n' at position 1026786 may be 'c'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: allele
LOCATION: (1007820)..(1007823)
OTHER INFORMATION: "ttct" may be deleted at this position
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ď
                                      the 'n' at position 843118 may be 't'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: allele
LOCATION: (1018718)..(1018720)
OTHER INFORMATION: "gtt" may be deleted at this position
                                                                                                                                                                                                                                                                                                                                                                                            'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the 'n' at position 993220 may be 'c'
                                                                                                                                                                                ù
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                       ŭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: allele
LOCATION: (1018038)
OTHER INFORMATION: the 'n' at position 1018038 may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAWE/KEY: allele
LOCATION: (1018704)
OTHER INFORMATION: the 'n' at position 1018704 may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1047134)
OTHER INFORMATION: the 'n' at position 1047134 may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               the 'n' at position 925859 may be
                                                                                                                                                                LOCATION: (871140)
OTHER INFORMATION: the 'n' at position 871140 may be
                                                                                                                                                                                                                 NAME/KEY: allele
LOCATION: (871168)
OTHER INFORMATION: the 'n' at position 871168 may be
                                                                                                                                                                                                                                                                                                                     the 'n' at position 872678 may be
                                                                                                                                                                                                                                                                                                                                                                                            ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (993254)
OTHER INFORMATION: the 'n' at position 993254 may be
                                                                                                             ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: (1006462)
OTHER INFORMATION: the 'n' at position 1006462 may
                                                                                                                                                                                                                                                                                                                                                                                            the 'n' at position 872742 may
                                                                                                           the 'n' at position 871027 may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (1047159)
OTHER INFORMATION: the 'n' at position 1047159
                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: allele
LOCATION: (925859)
OTHER INFORMATION: t
                                                          FRATURE:
NAME/KEY: allele
LOCATION: (871027)
OTHER INFORMATION: t
                       LOCATION: (843118)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: allele
LOCATION: (993220)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                    NAME/KEY: allele
LOCATION: (872678)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                          ION: (872742)
INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: allele
                                                                                                                                                                                                                                                                                                                                                                            LOCATION
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: UNIVERSITY OF UTAH RESEARCH FOUNDATION
TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND
TITLE OF INVENTION: VIRAL BUDDING
FILE REFERENCE: 0274-5785.1US
CURRENT APPLICATION NUMBER: US/10/928,446A
CURRENT FILING DATE: 2004-08-26
PRIOR PRIOR APPLICATION NUMBER: 60/359,741
PRIOR PLING DATE: 2002-02-26
NUMBER OF SEQ ID NOS: 202
SOFTWARE: PATENTIN VOY: 2.1
SEQ ID NO 1
LENGTH: 1080000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ģ
                                                                                                                                                                                                                                                                                                                                                                                                              ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or
                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ör
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: allele
LOCATION: (843055)
OTHER HFORMATION: the 'n' at position 843055 may be 'g'
FBATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: allele
LOCATION: (825765)
OTHER INFORMATION: a "c" may be deleted at this position
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEY: allele
ION: (826546)
I INFORMATION: the 'n' at position 826546 may be 'a'
                                                                                                                                                                                                                                                                                                                                             Ď
                                                                                                                                                                                                                                                                                                                                                                                                              ů,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ,
p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ,
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: allele
LOCATION: (827008)
OTHER INFORMATION: the 'n' at position 827008 may be 'a'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ,
G
                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: allele
LOCATION: (825270)
OTHER INFORMATION: the 'n' at position 825270 may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: allele
LOCATION: (826826)
OTHER INFORMATION: the 'n' at position 826826 may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: allele
LOCATION: (826863)
OTHER INFORMATION: the 'n' at position 826863 may be
                                                                                                                                                                                                                                                                                                 NAME/KEY: allele
LOCATION: (825234)
OTHER INFORMATION: the 'n' at position 825234 may be
PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION: (825473)
OTHER INFORMATION: the 'n' at position 825473 may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  at position 825401 may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'n' at position 826654 may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: allele
LOCATION: (825428)
OTHER INFORMATION: the 'n' at position 825428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAWE/KEY: allele
LOCATION: (825828)
OTHER INFORMATION: the 'n' at position 825828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ION: (826041)
INFORMATION: the 'n' at position 826041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: allele
LOCATION: (826654)
OTHER INFORMATION: the
                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: allele
LOCATION: (825401)
OTHER INFORMATION: the
                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEY: allele
```

ģ

Ď

p

```
OCATION: (1018160)..(1018291)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
CCCATION: (1028113)..(1028167)
JTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
LOCATION: (1044868)..(1044989)
OTHER INFORMATION: exon
FRAMURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: (1002118)..(1002284)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCATION: (1006117)..(1006249)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OCATION: (1007860)..(1008036)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COCATION: (1010940)..(1011014)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (1018800)..(1018919)
TTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (1034316)..(1034374)

STHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                   (1000354)..(1000456)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1020028)..(1020225)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: (1026659)..(1026736)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1041390)..(1041455)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1043121) .. (1043350)
                      NAME/KEY: CDS
LOCATION: (926021)...(926059)
OTHER INFORMATION: exon
PERTURE:
                                                                                                                                                                                                             LOCATION: (993104)..(993154)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                             NAME/KEY: CDS
LOCATION: (999547)..(999608)
OTHER INFORMATION: exon
                                                                                                                             LOCATION: (929123)..(929176)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: CDS
LOCATION: (1043121).
OTHER INFORMATION: e
                                                                                                                                                                          FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAMB/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AME/KEY: CDS
LOCATION: (10)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAMB/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IAMB/KBY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                       OCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 771426 AGCACTTCACTTGACGAAAGAAGTGCGATACGTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-928-446A-181

Sequence 181, Application US/10928446A

Publication No. US20050277123A1

GENERAL INFORMATION:

TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND

TITLE OF INVENTION: VIRAL BUDDING

PILE REPERRNCE: 0.74-5785.1US

CURRENT APPLICATION NUMBER: US/10/928,446A

CURRENT APPLICATION NUMBER: 60/359,741

PRIOR APPLICATION NUMBER: 60/359,741

PRIOR PILING DATE: 2002-02-26

NUMBER OF SEQ ID NOS: 202

SOFTWARE: Patentin Ver: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          °
                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: allele

COCATION: (1073711)

S OTHER INFORMATION: the 'n' at position 1073711 may be 'c' or 't'

US-10-928-446A-1
                                                                                                                                                                                                                                                                             ģ
                 OTHER INFORMATION: the 'n' at position 1047739 may be 'a' or 'g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 22.5%; Score 29; DB 8; Length 1080000; Best Local Similarity 55.4%; Pred. No. 12; Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ģ
                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KES: allele
LOCATION: (827008)..(827008)
OTHER INFORMATION: the 'n' at position 827008 may be 'a' or
                                                       NAME/KEY: allele
LOCATION: (1050133)..(1050137)

LOCATION: (1050133)..(1050137)

FRATURE: INFORMATION: "ttaaa" may be deleted at this position
FRATURE: NAME/KEX: allele
LOCATION: (1050539)

OTHER INFORMATION: the 'n' at position 1050539 may be 'c' other.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       771486 ATTTGCTACGTGCTCATGTCTTGTCTCATGATAGAATGCAG 771526
                                                                                                                                                                                                                            NAME/KEY: allele
LOCATION: (1062808)
OCHER INFORMATION: the 'n' at position 1062808 may be 'c'
FEATURE:
LOCATION: (1066392)
OTHER INFORMATION: the 'n' at position 1066392 may be 'a'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    76 TGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: full exon 1 range is 826667-827008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
LOCATION: (826985)..(827008)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (922549)..(922630)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (843242)..(843315)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
(1047739)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 181
LENGTH: 1080000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

```
THER INFORMATION: full exon 1 range is 82667-827008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
LOCATION: (1006117)..(1006249)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (1018160)..(1018291)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ION: (1018800)..(1018919)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ION: (1026659)..(1026736)
INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (1028113)..(1028167)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (1034316)..(1034374)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: CDS
LOCATION: (1041390)..(1041455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OCATION: (1007860)..(1008036)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (1010940)..(1011014)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (1020028)..(1020225)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COCATION: (1000354)..(1000456)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1002118)..(1002284)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VAME/KEY: CDS
LOCATION: (999547)..(999608)
OTHER INFORMATION: exon
                                                                                                               FEATURE:
NAME/KEY: CDS
LOCATION: (922549)..(922630)
OTHER INFORMATION: exon
                                          NAME/KEY: CDS
LOCATION: (843242)..(843315)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                   LOCATION: (926021)..(926059)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                             LOCATION: (929123)..(929176)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                     CCATION: (993104)..(993154)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THER INFORMATION: exon
                                                                                                                                                                                                           FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PEATURE: AME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         771426 AGCAGTTCACTTGAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 183, Application US/10928446A
| Sequence 183, Application US/1028446A
| Publication No. US20050277123A1
| GENERAL INFORMATION:
| APPLICANT: UNIVERSITY OF UTAH RESEARCH FOUNDATION
| TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND
| TITLE OF INVENTION: VIRAL BUDDING
| TITLE OF INVENTION: VIRAL BUDDING
| FILE REFERENCE: 0274-5785.1US
| CURRENT APPLICATION NUMBER: US/10/928,446A
| CURRENT FILING DATE: 2004-08-26
| PRIOR APPLICATION NUMBER: 60/359,741
| PRIOR PLING DATE: 2002-02-26
| NUMBER OF SEQ ID NOS: 202
| SEQ ID NO 183
| LENGTH: 1080000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 22.5%; Score 29; DB 8; Length 1080000; Best Local Similarity 55.4%; Pred. No. 12; Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                771486 ATTTGCTACGTGCTCATGTGTTGTCTGATGAATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:

// OTHER INFORMATION: full exon 30 range is 1073289-1075279

US-10-928-446A-181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76 TGTTGTGGTGCTGTGTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
LOCATION: (1067768)..(1067864)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION: (1066207)..(1066314)
OTHER INFORMATION: exon
FEATURE:
                                               FEATURE:
NAME/KEY: CDS
LOCATION: (1050296)..(1050391)
OTHER INFORMATION: exon
                                                                                                                                                                                   LOCATION: (1060368)..(1060441)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: (1068609)..(1068681)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (1073289)..(1073388)
    LOCATION: (1047519)..(1047589)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                             LOCATION: (1062648)..(1062708)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                       LOCATION: (1064561)..(1064620)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
LOCATION: (826985)..(827017)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 4
US-10-928-446A-183
                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
```

ઠે g

ઠ

```
OTHER INFORMATION: full length exon 1 range is 722213-722534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
LOCATION: (1026659)..(1026736)
OTHER INFORMATION: exon
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (1007860)..(1008036)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OCATION: (1010940)..(1011014)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (1018160)..(1018291)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: (1018800)..(1018919)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (1020028)..(1020225)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OCATION: (1000354)..(1000456)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (1002118)..(1002284)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION: (1006117)..(1006249)
OTHER INFORMATION: exon
PRIOR FILING DATE: 2002-02-26
NUMBER OF SEC ID NOS: 202
SOFTWARE: Patentin Ver. 2.1
SEC ID NO 185
LENGTH: 1080000
                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
LOCATION: (922549)..(922630)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
LOCATION: (926021)..(926059)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
LOCATION: (999547)..(999608)
THER INFORMATION: exon
                                                                                                                                                                                       NAME/KEY: CDS
LOCATION: (722487)..(722534)
                                                                                                                                                                                                                                                                                                                           LOCATION: (843242)..(843315)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OCATION: (929123)..(929176)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (993104) .. (993154)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (993104)..(993
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (1020028)..(1
                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                        NAME/KBY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AME/KEY: CDS
                                                                                                                                                                  FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IAME/KEY:
                                                                                                                                                                                                                                                                                PEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           771426 AGCAGTTCACTTGAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 5

US-10-928-446A-185

US-10-928-446A-185

Sequence 185, Application US/10928446A

Sequence 185, Application US/10928446A

Publication No. US20050277123A1

GENERAL INFORMATION:
TITLE OF INVENTION: VARIANTS OF UTAH RESEARCH FOUNDATION

TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND

TITLE OF INVENTION: VIRAL BUDDING

FILE REPREBUCE: 0274-5785.1US

CURRENT APPLICATION NUMBER: US/10/928,446A

CURRENT PILING DATE: 2004-08-26

PRIOR APPLICATION NUMBER: 60/359,741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 22.5%; Score 29; DB 8; Length 1080000; Best Local Similarity 55.4%; Pred. No. 12; Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   771486 ATTTGCTACGTGCTCATGTTTGTCTGATAGAATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: full exon 30 range is 1073289-1075279 US-10-928-446A-183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          76 TGTTGTGGTGCTGTGTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: (1060368)..(1060441)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
LOCATION: (1067768)..(1067864)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                              LOCATION: (1050296)..(1050391)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1062648)..(1062708)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (1066207)..(1066314)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (1068609)..(1068681)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1073289)..(1073388)
                                                                     LOCATION: (1043121)..(1043350)
OTHER INFORMATION: exon
                                                                                                                                                             LOCATION: (1044868)..(1044989)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                        LOCATION: (1047519)..(1047589)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: (1064561)..(1064620)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: (1068609)..(1)
OTHER INFORMATION: exon
    OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: exon
                            FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: CDS
                                                                                                                                        NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
```

g

ઠે 8 ઠ

```
Sequence 187, Application US/10928446A

Publication No. US20050277123A1

GENERAL INFORMATION:

APPLICANT: UNIVERSITY OF UTAH RESEARCH FOUNDATION

TITLE OF INVENTION: VIRAL BUDDING

TITLE OF INVENTION: VIRAL BUDDING

FILE REFERENCE: 0274-5785.1US

CURRENT FILING DATE: 2004-08-26

PRIOR APPLICATION NUMBER: 60/359,741

PRIOR PLING DATE: 2002-226

NUMBER OF SEQ ID NOS: 202

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 187

LENGTH: 1080000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: full length exon 7 range is 999547-999608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ION: (1010940)..(1011014)
INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OCATION: (1018160)..(1018291)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: (1020028)..(1020225)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: CDS
LOCATION: (1026659) ..(1026736)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (1034316) ..(1034374)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: (1041390)..(1041455)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
LOCATION: (1043121)..(1043350)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ION: (1000354)..(1000456)
INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: (1002118)..(1002284)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COCATION: (1006117)..(1006249)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ION: (1007860)..(1008036)
INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (1018800)..(1018919)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
LOCATION: (999562)..(999608)
                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
LOCATION: (10)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      771426 AGCAGTTCACTTGAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16 AGCGATTACTTCGAGCATTACTGACGACAAAAGACCCCGACAGATGGTCGGGGGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: full length exon 30 range is 1073289-1075279
US-10-928-446A-185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 22.5%; Score 29; DB 8; Length 1080000; Best Local Similarity 55.4%; Pred. No. 12; Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              771486 ATTTGCTACGTGCTCATGTGTTGTCTGATGAATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  76 TGTTGTGGTGCTGTGTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1066207)..(1066314)
OTHER INFORMATION: exon
PEATURE:
                                                                                  PEATURE:
NAME/KEY: CDS
LOCATION: (1034316)..(1034374)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (1050296)..(1050391)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (1067768)..(1067864)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: CDS
LOCATION: (1073289)..(1073388)
                                LOCATION: (1028113)..(1028167)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: (1060368)..(1060441)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (1062648)..(1062708)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: (1064561)..(1064620)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1068609)..(1068681)
OTHER INFORMATION: exon
                                                                                                                                                                                                                LOCATION: (1041390)..(1041455)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                          LOCATION: (1043121)..(1043350)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (1044868)..(1044989)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATION: (1047519) .. (1047589)
HER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
US-10-928-446A-187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
```

FEATURE:

ઠે

ò

NAME/KEY:

```
OTHER INFORMATION: full length exon 1 range is 723483-723516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ANNE/KEY: CDS
JOCATION: (1043121)..(1043350)
JTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
LOCATION: (1050296)..(1050391)
OTHER INFORMATION: exon
FEATURE:
                                                                                                                                                                                                                                                                                            JAME/KEY: CDS
COCATION: (1006117)..(1006249)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCATION: (1010940)..(1011014)
                                                                                                                                                                                                                                         LOCATION: (1002118)..(1002284)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ION: (1020028)..(1020225)
INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
LOCATION: (1047519)..(1047589)
JTHER INFORMATION: exon
                                                                                                                                                                     LOCATION: (1000354)..(1000456)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                   OCATION: (1007860)..(1008036)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OCATION: (1018160)..(1018291)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OCATION: (1018800)..(1018919)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OCATION: (1026659)..(1026736)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OCATION: (1028113)..(1028167)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OCATION: (1034316)..(1034374)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OCATION: (1041390)..(1041455)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCATION: (1044868)..(1044989)
                                                                 NAME/KEY: CDS
LOCATION: (723508)..(723516)
                rype: DNA
ORGANISM: Homo sapiens
LENGTH: 1080000
                                                                                                                                                                                                                                                                                                                                                                                                                                          AME/KEY: CDS
                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                            IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                 IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'EATURE:
VAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  771426 AGCAGTTCACTTGAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match

22.5%; Score 29; DB 8; Length 1080000;
Best Local Similarity 55.4%; Pred. No. 12;
Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: full length exon 30 range is 1073289-1075279
US-10-928-446A-187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     771486 ATTTGCTACGTGCTCATGTGTTGTCTGATGGATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76 TGTTGTGGTGCTGTGTGTTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1068609)..(1068681)
OTHER INFORMATION: exon
                                                 LOCATION: (1044868)..(1044989)
OTHER INFORMATION: exon
                                                                                                                  LOCATION: (1047519)..(1047589)
OTHER INFORMATION: exon
                                                                                                                                                                                       LOCATION: (1050296)..(1050391)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                           LOCATION: (1060368)..(1060441)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                   OCATION: (1064561)..(1064620)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (1067768) .. (1067864)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (1073289)..(1073388)
                                                                                                                                                                                                                                                                                                                              LOCATION: (1062648)..(1062708)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (1067768)..(1)
OTHER INFORMATION: exon
                                                                                                                                                                       NAME/KEY: CDS
LOCATION: (109
                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                            NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: CDS
```

셤 ò 셤

ઠે

```
COCATION: (1060368)..(1060441)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
NAME/KEY: CDS
LOCATION: (1066207)..(1066314)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
LOCATION: (102659)..(1026736)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
LOCATION: (1028113)..(1028167)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OCATION: (1047519)..(1047589)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1050296)..(1050391)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1064561)..(1064620)
OTHER INFORMATION: exon
LOCATION: (1002118)..(1002284)
OTHER INFORMATION: exon
                                                                   NAME/KEY: CDS
LOCATION: (1006117)..(1006249)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                       LOCATION: (1010940)..(1011014)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: (1020028)..(1020225)
JTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCATION: (1034316)..(1034374)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ION: (1041390)..(1041455)
INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COCATION: (1043121)..(1043350)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ION: (1044868)..(1044989)
INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                               OCATION: (1018160)..(1018291)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCATION: (1018800)..(1018919)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (1062648)..(1062708)
OTHER INFORMATION: exon
                                                                                                                                                                               LOCATION: (1007860)..(1008036)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION: exon
                                                                                                                                                                                                                              FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                             NAME/KEY: CDS
LOCATION: (10
                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    771426 AGCAGTTCACTTGAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 191, Application US/10928446A

Sequence 191, Application WG. U320050277123A1

GENERAL INFORMATION:

APPLICANT: UNIVERSITY OF UTAH RESEARCH FOUNDATION

TITLE OF INVENTION: VIRAL BUDDING

FILE REFRERENCE: 0.774-5.785.104

CURRENT APPLICATION NUMBER: US/10/928,446A

CURRENT FILING DATE: 2004-08-26

PRIOR FILING DATE: 2002-02-26

NUMBER OF SEQ ID NOS: 20.2

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 191

TYPE: DATE: DATE: 2000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16 AGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACCGGAGATGGTCGGGGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: full length exon 30 range is 1073289-1075279 US-10-928-446A-189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 22.5%; Score 29; DB 8; Length 1080000; Best Local Similarity 55.4%; Pred. No. 12; Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: full length exon 7 range is 999547-999608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     771486 ATTTGCTACGTGCTCATGTGTTGTTGATAGAATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              76 TGTTGTGGTGCTGTGTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: (1068609)..(1068681)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (1000354)..(1000456)
OTHER INFORMATION: exon
                         LOCATION: (1060368)..(1060441)
OTHER INFORMATION: exon
                                                                                          NAME/KEY: CDS
LOCATION: (1062648)..(1062708)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                              LOCATION: (1066207)..(1066314)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: (1067768)..(1067864)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (1073289)..(1073388)
                                                                                                                                                                                                         LOCATION: (1064561)..(1064620)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (999562)..(999608)
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-928-446A-191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
NAME/KEY: CDS
LOCATION: (1073289)..(1073388)
FEATURE:
OTHER INFORMATION: full length exon 30 range is 1073289-1075279
                                   NAME/KEY: CDS
LOCATION: (1018160)..(1018291)
OTHER INFORMATION: exon
                                                                                                                                       FRATURE:
NAME/KEY: CDS
LOCATION: (1018800)..(1018919)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                        LOCATION: (1020028)..(1020225)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WANE/KEY: CDS
LOCATION: (1028113)..(1028167)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
LOCATION: (1034316)..(1034374)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
OCATION: (1041390)..(1041455)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACATION: (1050296)..(1050391)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VAME/KEY: CDS
LOCATION: (1064561)..(1064620)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
LOCATION: (1066207)..(1066314)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (1068609)..(1068681)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (1026659)..(1026736)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OCATION: (1043121)..(1043350)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OCATION: (1047519)..(1047589)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COCATION: (1060368)..(1060441)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: (1067768)..(1067864)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ION: (1044868)..(1044989)
INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: (1062648)..(1062708)
THER INFORMATION: exon
                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IAME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          771426 AGCAGTTCACTTGAGACTTTCTCACGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ## Sequence 193, Application US/10928446A
## Sequence 193, Application No. US20050277123A1
## CENERAL INFORMATION
## APPLICANT: UNIVERSITY OF UTAH RESEARCH FOUNDATION
## TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND
## TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND
## TITLE OF INVENTION: VIRAL BUDDING
## TITLE OF INVENTION: VIRAL BUDDING
## TITLE OF INVENTION: VIRAL BUDDING
## TITLE OF INVENTION NUMBER: US/10/928,446A
## CURRENT FILING DATE: 2024-08-26
## PRIOR APPLICATION NUMBER: 60/359,741
## PRIOR PILING DATE: 2002-26
## NUMBER OF SEQ ID NOS: 202
## SEQ ID NO 193
## ILING DATE: 2003-02-26
## SEQ ID NO 193
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-02-26
## ILING DATE: 2003-03-26
#
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16 AGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACCGGGGTGGTCGGGGTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                            ; OTHER INFORMATION: full length exon 30 range is 1073289-1075279
US-10-928-446A-191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 22.5%; Score 29; DB 8; Length 1080000; Best Local Similarity 55.4%; Pred. No. 12; Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: full length exon 7 range is 999547-999608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        771486 ATTIGCTACGTGCTCATGTTGTCTGATAGAATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76 TGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                FEATURE:
NAME/KEY: CDS
LOCATION: (1068609) .. (1068681)
OTHER INFORMATION: exon
FEATURE:
NAME/KEY: CDS
LOCATION: (1073289) .. (1073388)
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
LOCATION: (1010940)..(1011014)
OTHER INFORMATION: exon
                                                                                                LOCATION: (1067768)..(1067864)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: (1000354)..(1000456)
OTHER INFORMATION: exon
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1002118)..(1002284)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1006117)..(1006249)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (1007860)..(1008036)
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
LOCATION: (999562)..(999608)
FEATURE:
OTHER INFORMATION: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 9
US-10-928-446A-193
                                FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
LOCATION: (10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
```

```
CDS (1050296)..(1050391)
                                                                                                                                                                                                                                                                                                                                                                                                                   CDS (1066207)..(1066314)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
NAME/KEY: CDS
LOCATION: (1068609)..(1068681)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (1073289)..(1073388)
FEATURE:
CDS
(1041390)..(1041455)
                                                                                                   CDS (1044868)..(1044989)
                                                                                                                                                                                                                                                                            (1060368)..(1060441)
                                                                                                                                                                                                                                                                                                                                                                  CDS (1064561)..(1064620)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (1067768)..(1067864)
                                                               (1043121)..(1043350)
                                                                                                                                                                       (1047519)..(1047589)
                                                                                                                                                                                                                                                                                                                               (1062648)..(1062708)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: CDS
                                                                 LOCATION:
FEATURE:
NAME/KEY:
LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION:
FEATURE:
                                                                                                                                                      NAME/KEY:
LOCATION:
                                                                                                                                                                                                                           LOCATION:
                                                                                                                                                                                                                                                                                                                                   OCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COCATION:
                                                                                                                                                                                                           /KEY:
                                                                                                                                                                                                                                                                                                                                                                                      COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                               VAME/KBY:
                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY
                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                               771426 AGCAGTTCACTTGAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTGGTGTTAT 771485
                                                                     ö
                                                                                                                                                                                                                                                                                      Sequence 195, Application US/10928446A

Publication No. US20050277123A1

GENERAL INFORMATION

APPLICANT: UNIVERSITY OF UTAH RESEARCH FOUNDATION

TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND

TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND

TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND

TITLE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND

TITLE OF INVENTION: VARIANTS OF NEDD5.

CURRENT APPLICATION NUMBER: US/10/928,446A

CURRENT PLILNG DATE: 2004-08-26

PRIOR APPLICATION NUMBER: 60/359,741

PRIOR APPLICATION NUMBER: 2002-02-26

NUMBER OF SEQ ID NOS: 202

SOFTWARE: PATENTIN VET. 2.1

SEQ ID NO 195

LENGTH: 1080000
                                                                                                       75
                                                                                                     Gaps
                                                                     ;
0
                              Score 29; DB 8; Length 1080000;
Pred. No. 12;
0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: full length exon 7 range is 999547-999608
                                                                                                                                                                                                       771486 ATTTGCTACGTGCTCATGTGTTGTTGATGAATGCAG 771526
                                                                                                                                                                         76 TGTTGTGGTGTGTGTGTCCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
(1028113)..(1028167)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
(1002118)..(1002284)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS (1006117)..(1006249)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1010940)..(1011014)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
(1026659)..(1026736)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
(1034316)..(1034374)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1000354)..(1000456)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
(1007860)..(1008036)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1018160) .. (1018291)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (1018800)..(1018919)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (1020028)..(1020225)
                              Query Match
Best Local Similarity 55.4%;
Matches 56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: (999562) . (999608)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
 US-10-928-446A-193
                                                                                                                                                                                                                                                              RESULT 10
US-10-928-446A-195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
NAME/KEY:
LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                          ઠે
```

```
771426 AGCAGTTCACTTGAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-928-446A-197

(S-10-928-446A-197)

(Sequence 197, Application US/10928446A

(Publication No. US20050277123A1

(GENERAL INFORMATION:

(ATTILE OF INVENTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND

(TITLE OF INVENTION: VIRAL BUDDING

(TITLE OF INVENTION: VIRAL BUDDING

(TITLE OF INVENTION: VIRAL BUDDING

(CURRENT APPLICATION NUMBER: US/10/928,446A

(CURRENT PILING DATE: 2004-08-26

(PRIOR FILING DATE: 2002-02-26

(NUMBER OF SEQ ID NOS: 202

(SOFTWARE: PATENTIN VET. 2.1

(SEQ ID NO 197

(LENGTH: 1080000)
                                                                                                                                                                                                                                                 Gaps
; OTHER INFORMATION: full length exon 30 range is 1073289-1075279
US-10-928-446A-195
                                                                                                                Query Match

22.5%; Score 29; DB 8; Length 1080000;
Best Local Similarity 55.4%; Pred. No. 12;
Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                      771486 ATTTGCTACGTGCTCATGTGTTGTCTGATGAATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                              76 TGTTGTGGTGTGTGTGTTGTCCAACCGTATTATTCCG 116
```

ö

ô

```
771426 AGCAGTTCACTTCAGACATTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                    US-10-928-446A-199

| Sequence 199, Application US/10928446A |
| Sequence 199, Application US/10928446A |
| Sequence 199, Application US/10928446A |
| Sequence 199, Application No. US20050277123A1 |
| GENERAL INFORMATION: GENERAL INFORMATION: TITLE OF INVERTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND |
| TITLE OF INVERTION: VARIANTS OF NEDD4L ASSOCIATED WITH HYPERTENSION AND |
| FILE REFERENCE: 0274-5785.1US |
| CURRENT PILING DATE: 2004-08-26 |
| PRIOR APPLICATION NUMBER: 00/8-26 |
| PRIOR PELLING DATE: 2002-02-26 |
| NUMBER OF SEQ ID NOS: 202 |
| SOFTWARE: Patentin Ver. 2.1 |
| SEQ ID NO 199 |
| LENGTH: 1080000 |
                                                                                                                   Gaps
                                                                                     ö
; OTHER INFORMATION: full length exon 30 range is 1073289-1075279
US-10-928-446A-197
                                              Query Match
22.5%; Score 29; DB 8; Length 1080000;
Best Local Similarity 55.4%; Pred. No. 12;
Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: CDS
LOCATION: (999562)..(999608)
FEATURE:
OTHER INFORMATION: full length exon 7 range is 999547-999608
                                                                                                                                                                                                                      771486 ATTIGCTACGIGCTCAIGITIGITCTGAIGATAGAAIGCAG 771526
                                                                                                                                                                                      76 TGTTGTGGTGTGTGTGTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
(1010940)..(1011014)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: CDS
LOCATION: (1034316)..(1034374)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS (1006117)..(1006249)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS (1007860)..(1008036)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS (1018160)..(1018291)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
(1018800)..(1018919)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS (1028113)..(1028167)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS (1000354)..(1000456)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1002118)..(1002284)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
(1020028)..(1020225)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS (1026659)..(1026736)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CLOCATION: FEATURE: NAME/KEY: CLOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION:
FEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY:
LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
LOCATION:
FEATURE:
                                                                                                                                                   유
                                                                                                                                                                                        ð
                                                                                                                                                                                                                 g
                                                                                                                      ઠે
                               OTHER INFORMATION: full length exon 7 range is 999547-999608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1068609) ..(1068681)
FEATURE:
NAME/KEY: CDS
LOCATION: (1073289) ..(1073388)
FEATURE:
                                                                                                                   CDS (1002118)..(1002284)
                                                                                                                                                                                                                        CDS
(1007860)..(1008036)
                                                                   CDS
(1000354)..(1000456)
                                                                                                                                                                     CDS (1006117)..(1006249)
                                                                                                                                                                                                                                                                                      (1010940) .. (1011014)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS (1026659)..(1026736)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1034316)..(1034374)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS (1050296)..(1050391)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS (1062648)..(1062708)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS (1066207)..(1066314)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
(1067768)..(1067864)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS (1068609)..(1068681)
                                                                                                                                                                                                                                                                                                                                          (1018160)..(1018291)
                                                                                                                                                                                                                                                                                                                                                                                           (1018800)..(1018919)
                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
(1020028)..(1020225)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
(1043121)..(1043350)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
(1044868)..(1044989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
(1047519)..(1047589)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1060368)..(1060441)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1028113)..(1028167)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1041390)..(1041455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (1064561)..(1064620)
LOCATION: (999562)..(999608)
                                                                                                                                                                                                                                                                        NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY
```

```
ģ
LOCATION: (827008)..(827008)
OTHER INFORMATION: the 'n' at position 827008 may be 'a' or
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ION: (999562)..(999608)
INFORMATION: Full exon range is 999547-999608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEX: CDS
LOCATION: (1018800) .. (1018919)
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
(1006117)..(1006249)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               exon
(1007860)..(1008036)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
(1007860)..(1008036)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 exon
(1010940)..(1011014)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    exon (1018160)..(1018291)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS (1018160)..(1018291)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        exon (1018800)..(1018919)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS (1000354)..(1000456)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      exon
(1002118)..(1002284)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1002118)..(1002284)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (1006117)..(1006249)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1010940)..(1011014)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exon
(1000354)..(1000456)
                                                                                                                                                                                                                                                                                                      NAWE/KEY: 5'UTR
LOCATION: (929123)..(929176)
OTHER INFORMATION: Exon 5
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (993104)..(993154)
THER INFORMATION: Exon 6
                                                                                                   FEATURE:
NAME/KEY: 5'UTR
LOCATION: (904952)..(905030)
OTHER INFORMATION: Exon 2d
                                                                                                                                                                                     NAME/KEY: S'UTR
LOCATION: (922549)..(922630)
OTHER INFORMATION: Exon 3
                                 FEATURE:
NAME/KEY: 5'UTR
LOCATION: (872617)..(872860)
OTHER INFORMATION: Exon 2a
                                                                                                                                                                                                                                                          5'UTR
(926021)..(926059)
                                                                                                                                                                                                                                                                                                                                                                            WAME/KEY: 5'UTR
                                                                                                                                                                                                                                                          NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          771426 AGCAGTTCACTTTGTCACGAAAGAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
US-10-928-446A-201
US-10-928-446A-201

Sequence 201, Application US/10928446A

Publication No. US20050277123A1

GENERAL INFORMATION:
TITLE OF INVENTION: VIRAL BUDDING

TITLE OF INVENTION: VIRAL BUDDING

TITLE OF INVENTION: VIRAL BUDDING

FILE REFERENCE: 0274-5785. US

CURRENT APPLICATION NUMBER: US/10/928,446A

CURRENT PILING DATE: 2004-08-26

PRIOR FILLING DATE: 2002-02-26

NUMBER OF SEQ ID NOS: 202

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 201

LENGTH: 1080000

TYPE: DNA

TREST DNA

CORGANISM: HOMO Sapien8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 22.5%; Score 29; DB 8; Length 1080000; Best Local Similarity 55.4%; Pred. No. 12; Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: full length exon 30 range is 1073289-1075279
US-10-928-446A-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        771486 ATTIGCTACGTCCTCATGTGTTGTCTGATGAATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 TGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: (1073289)..(1073388)
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
(1066207)..(1066314)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1068609)..(1068681)
FEATURE:
     CDS
(1041390)..(1041455)
                                                                                                                                                                                                          CDS
(1050296)..(1050391)
                                                                                                                                                                                                                                                            CDS
(1060368)..(1060441)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
(1067768)..(1067864)
                                                     CDS
(1043121)..(1043350)
                                                                                                                                                                       (1047519) .. (1047589)
                                                                                                                                                                                                                                                                                                                              (1062648)..(1062708)
                                                                                                                                                                                                                                                                                                                                                                              (1064561)..(1064620)
                                                                                                                       (1044868)..(1044989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                        NAME/KEY:
LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                            NAME/KEY:
LOCATION:
                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
```

셤 ઠે

ઠે

us-10-782-899-1_copy_472_600.rnpbn

```
exon (1020028)..(1020225)
                                                                                                                                                                  exon (1028113)..(1028167)
                                                                                                                                                                                                                                                                                            CDS (1034316)..(1034374)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  exon (1050296)..(1050391)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS (1060368)..(1060441)
                                                                                            (1026659)..(1026736)
                                                                                                                                      (1026659)..(1026736)
                                                                                                                                                                                                                       (1028113)..(1028167)
                                                                                                                                                                                                                                                                (1034316)..(1034374)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
(1044868)..(1044989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (1050296)..(1050391)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exon
(1060368)..(1060441)
                                                     (1020028)..(1020225)
                                                                                                                                                                                                                                                                                                                                                    (1041390)..(1041455)
                                                                                                                                                                                                                                                                                                                                                                                             (1041390)..(1041455)
                                                                                                                                                                                                                                                                                                                                                                                                                                       (1043121)..(1043350)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (1043121)..(1043350)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (1044868)..(1044989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (1047519)..(1047589)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (1062648)..(1062708)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1064561)..(1064620)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1047519)..(1047589)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1062648)..(1062708)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (1064561)..(1064620)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1064:
FEATURE:
NAME/KEY: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
NAME/KEY:
                                                                                                                        NAME/KEY:
                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
```

```
US-11-124-368A-2924/C

i Sequence 2924, Application US/11124368A

i Publication No. US20050287559A1

i GENERAL INFORMATION:

i APPLICANT: Michele Cargill

i APPLICANT: May Luke

i TITLE OF INVENTION: Vascular Diseases, Methods of Detection and Uses Thereof

i TITLE OF INVENTION: Vascular Diseases, Methods of Detection and Uses Thereof

i TITLE OF INVENTION: Vascular Diseases, Methods of Detection and Uses Thereof

i TITLE OF INVENTION: Vascular Diseases, Methods of Detection and Uses Thereof

i TITLE OF INVENTION: Vascular Diseases, Methods of Detection and Uses Thereof

i TITLE OF INVENTION: Vascular Diseases, Methods of Detection and Uses Thereof

i TITLE OF INVENTION: Vascular Diseases, Methods of Detection and Uses Thereof

i PRIOR PAPLICATION NUMBER: US 60/568,845

i PRIOR PAPLICATION NUMBER: US 60/625,936

i PRIOR PILING DATE: 2004-11-09

i NUMBER OF SEC ID NOS: 21112

i SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                771426 AGCAGTTCACTTGAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 771485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23 ACTICGAGCATTACTGACGACAAAGACCCCGACCGAGATGGTCGGGGGTCTTTTTGTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0, Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22.3%; Score 28.8; DB 12; Length 79134; 58.0%; Pred. No. 7.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 22.5%; Score 29; DB 8; Length 1080000; Best Local Similarity 55.4%; Pred. No. 12; Matches 56; Conservative 0; Mismatches 45; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       771486 ATTTGCTACGTGCTCATGTTGTTGTTGATGGATGCAG 771526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches 37; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 TGTTGTGGTGCTGTGTGTTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          76097 ritriticagaidaadicicacicidir 76070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83 GTGCTGTGACGTGTTGTCCAACCGTATT 110
                                                                                                                                                                                                                                                                  LOCATION: (1066207)..(1066314)
                                                 CDS (1066207)..(1066314)
                                                                                                                  exon (1067768) .. (1067864)
                                                                                                                                                                                  CDS (1067768) .. (1067864)
                                                                                                                                                                                                                                                   exon (1068609)..(1068681)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 58.0 Matches 51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA
; ORGANISM: Homo sapiens
US-11-124-368A-2924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 2924
LENGTH: 79134
                                                                 LOCATION:
FEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                             FEATURE:
NAME/KEY:
                                                                                                                                                                                                         LOCATION
                                                                                                                                                                                                                                                 NAME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
```

```
WENDUT

WENDUT

WENDUT

WENDUT

WENDUT

Sequence 98, Application US/10955054A

PUBlication No. USZO0S0266420A1

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

MORENT

STREAM

MORENT

STREAM

MORENT

SECULO

SECULO

SEQUENCE

SEQUENCE

MORENT

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE

SEQUENCE
```

Search completed: March 7, 2006, 13:20:56 Job time: 1206.75 secs

US-10-424-599-128897
US-10-052-586-591
US-10-176-758-591
US-10-176-758-591
US-10-176-749-591
US-10-176-749-591
US-10-176-749-591
US-10-176-749-591
US-10-176-749-591
US-10-176-749-591
US-10-176-749-591
US-10-176-749-591
US-10-176-78-591
US-10-176-78-591
US-10-176-78-591
US-10-176-78-591
US-10-180-55-591
US-10-180-55-591
US-10-174-579-591

~ w w w w w w w w w w w w w w w w w

20093 20093

sednence sed

Sequence Seq

591, 591,

ALIGNMENTS

```
March 7, 2006, 12:14:00; Search time 354.047 Seconds (without alignments) 3013.020 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                 tgaccttctgctcgtagcga......tattccggactagttcagcg 129
                                                                                                                                                                                                                                                                                                                                                                       Published Applications NA Main:*

1: /cgn2_6/ptodata/1/pubpna/USO7_PUBCOMB.seq:*

2: /cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*

3: /cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*

4: /cgn2_6/ptodata/1/pubpna/USO9B_PUBCOMB.seq:*

5: /cgn2_6/ptodata/1/pubpna/USO9B_PUBCOMB.seq:*

6: /cgn2_6/ptodata/1/pubpna/USO9B_PUBCOMB.seq:*

7: /cgn2_6/ptodata/1/pubpna/USO9B_PUBCOMB.seq:*

8: /cgn2_6/ptodata/1/pubpna/USO0B_PUBCOMB.seq:*

9: /cgn2_6/ptodata/1/pubpna/USO0B_PUBCOMB.seq:*

9: /cgn2_6/ptodata/1/pubpna/USO0B_PUBCOMB.seq:*

10: /cgn2_6/ptodata/1/pubpna/USO0B_PUBCOMB.seq:*
             GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                9793542 segs, 4134689005 residues
                                                                                                                                        US-10-782-899-1_COPY_472_600
129
                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                              nucleic search, using sw model
                                                                                                                                                                                           IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                            Scoring table:
                                                                                                                                                       score:
                                                              nucleic
                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                      Run on:
                                                              δ
```

	Description	Sequence 1, Appli	1	•	Sequence 306, App	Sequence 1, Appli	Sequence 19115, A	Sequence 15, Appl	Sequence 232, App	Sequence 17, Appl	Sequence 1, Appli	Sequence 70, Appl		317,	Sequence 152385,	Sequence 31, Appl	31,	Sequence 31, Appl	Sequence 64, Appl	64,	1309	Sequence 9386, Ap	Sequence 80607, A	Sequence 1015, Ap
	De	S	S		S	ςΩ	S	S	S	S	S	S	S	S	S	S	S	S	S	ຜ	ß	ß	ഗ	S
SUMMARIES	QI	US-09-816-391A-1	US-10-782-899-1	7 US-10-470-565-1	US-10-617-320-306	US-10-687-677-1	US-09-814-353-19115	US-10-332-859-15	US-10-332-859-232	US-10-332-859-17	US-10-779-271-1	US-10-737-082-70	US-10-765-790-70	US-10-332-859-317	US-10-425-115-152385	US-09-903-410-31	US-10-027-805-31	US-10-027-804-31	US-09-938-842A-64	US-09-938-842A-64	US-10-029-386-13097	US-10-450-763-9386	US-10-437-963-80607	US-10-087-192-1015
	BB 1	3	8	9	9	7	3	7	7	7	80	9	ο.		∞	m		'n	<u>س</u>	<u>س</u>	9	9	7	- 2
	å Query Match Length DB	600	9	2256646	882	1377	3520	634	1013	1836	344805	354592	354592	166	1043	936	936	936	2451	2451	599	1152	3519	165223
	Query Match	0.00	100.0		22.8	22.8	22.8	22.6	22.6	22.6	22.5	22.5	22.5	22.3	22.2	22.0	22.0	22.0	22.0	22.0	21.9	21.9	21.9	21.7
						4	4	~	~	~	σ,	σ.	···	œ								~	~	···
	Score	12	129	12	29.4	29.	29.	29	29.	29	Ñ	Ö	Ñ	28.8	28.6	28.	28.	28.	28.	28.	28.2	78	28.	28
	Result No.	-	7	e ن	4	c)	9	7	œ	σ	10	11	12	13	c 14	15	16	11	18	19	20	21	22	23
	Ř.			•		٠		Ĭ						•	٦						٦		٦	Ŭ

RESULT

	טייייייייייייייייייייייייייייייייייייי
RESULT S-69-1 S-	11 side 1. Application US/09816391A nt No. US20020054865A1 nt No. US20020054865A1 AAL INFORMATION: LICANT: FUNIOURI, Minoru LICANT: FUNIOURI, Minoru LICANT: YAZAWA, Kazuyuki LICANT: YAZAWA, Takayuki LICANT: NAKAMURA, TOSHIYYKi LICANT: SASAK, Takayuki LICANT: SASAK, Taka
Que Bes Mat	Query Match 100.0%; Score 129; DB 3; Length 600; Best Local Similarity 100.0%; Pred. No. Se-37; Matches 129; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
È	1 TGACCTTCTGCTCGTAGCGATTACTTCGAGCACTACTGACGACAAGACCCCGACCGA
qq	472 TGACCTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACCGA
ઠે	61 TGGTCGGGGTCTTTTTGTTGTGGTGTGTGACGTGTTGTCCAACCGTATTATTCCGGACT 120
ф	532 regregedererringinergerechenerenerenenen 591
È	121 AGTTCAGCG 129
Ор	592 AGITCAGCG 600

```
32 ATTACTGACGACAAAAACCCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTGCTGTGA 91
                                             g
                                                                                                ò
ò
                                   GENERAL INFORMATION:
APPLICANT: FUJIMORI, MINORU
APPLICANT: TANIGUCHI, SHUNICHIRO
APPLICANT: AMANO, JUN
APPLICANT: AMANO, JUN
APPLICANT: AMANO, JUN
APPLICANT: NAKAWIRA, TOSHIYUKI
APPLICANT: NAKAWIRA, TOSHIYUKI
APPLICANT: SASAKI, TOSHIYUKI
APPLICANT: SASAKI, TOSHIYUKI
APPLICANT: SASAKI, TOSHIYUKI
APPLICANT: MARAWIRA, TOSHIYUKI
APPLICANT: MARAWIRA, TOSHIYUKI
APPLICANT: MARAWIRA, TOSHIYUKI
APPLICATION NUMBER: US/10/782,899
CURRENT FILING DATE: 2004-02-23
PRIOR FILING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: UP 2000-287688
PRIOR PILING DATE: 2000-09-21
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PATENTIN VET: 3.2
SEQ ID NO 1
LENGTH: 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 TGGTCGGGGTCTTTTTGTTGTTGTGGTGTGTGACGTGTTGTCCAACCGTATTATTCCGGACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  532 recresesererrirrerrersersersersersererrereceaecsiarrarressacr 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 TGACCTTCTGCTCGTAGCGATTACTTCGAGCATTACTGACGACAAAGACCCCGACCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 129; DB 7; Length 2256646; Best Local Similarity 100.0%; Pred. No. 6.6e-36; Matches 129; Conservative 0; Mismatches 0; Indels 0; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/10470565
Publication No. US20040126870A1
GENERAL INFORMATION:
TITLE OF INVENTION: NCC2705 - the genome of a Bifidobacterium
FILE REFERENCE: 80290/W0
CURRENT APPLICATION NUMBER: US/10/470,565
CURRENT FILING DATE: 2003-07-29
PRIOR PILING DATE: 2003-07-29
PRIOR FILING DATE: 2001-01-30
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin version 3.1
SEQ ID NO 1
LENGTH: 2256646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 8; Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 129; DB 8; Leusurannon 0%; Pred. No. 5e-37; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Bifidobacterium longum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Bifidobacterium longum US-10-470-565-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%; Best Local Similarity 100.0%; Matches 129; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 AGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTICAGCG 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      i NAME/KEY: CDS
i LOCATION: (193)..(471)
US-10-782-899-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-470-565-1/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
```

ò

```
FOR DIAGN
2241639 resrecesesterriringristesesestesestesestesistesesestarriarrecesest 2241580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                Sequence 306, Application US/10617320
; Publication No. US20050136404A1
; GENERAL IMPORMATION:
APPLICANT: Lynn A Doucette-Stamm and David Bush
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID
SEQUENCES RELATING TO STREPTOCOCCUS PNEUMONIAE
THERAPEUTICS
THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 22.8%; Score 29.4; DB 9; Length 885; Best Local Similarity 58.6%; Pred. No. 3.5; Matches 51; Conservative 0; Mismatches 36; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: GENOME THERAPEUTICS CORPORATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/107,433
PILING DATE: 30-Jun-1998
APPLICATION NUMBER: 60/065131
PILING DATE: May 12, 1998
APPLICATION NUMBER: 60/051553
FILING DATE: JULy 2, 1997
ATTORNEY/AGENT INFORMATION:
NAME: Ariniello, Pamela Deneke
REGISTRATION NUMBER: 40,489
REPERENCE/DOCKET NUMBER: GTC-011
TELECOMMUNICATION INFORMATION:
                                                61 TGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/10/617,320 FILING DATE: 10-Jul-2003 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 02354
COMPUTER READABLE FORM:
MEDIUM TYPE: CD/ROM ISO9660
COMPUTER: «Unknown»
OPERATING SYSTEM: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 100 Beaver Street
CITY: Waltham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (781)893-5007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: circular
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 885 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (781)893-8277
INFORMATION FOR SEQ ID NO: 306:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: <Unknown>
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: Massachusetts
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
                                                                                                                                                                     2241579 AGTTCAGCG 2241571
                                                                                                                                        AGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGINAL SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ANTI-SENSE: NO
                                                                                                                                                                                                                                                         RESULT 4
US-10-617-320-306
                                                                                                                                           121
```

ö

Gapa

```
245 Arcicircaccricidescearerestriririritationesecritaracrierisecceacric 186
                                                                                    27 cccrcractrarcrascrascrastrararararararararactrararara
                                                                                                                                                                                                             87 eceanenegriricrieresecretarecrecrececeaerrearec 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
ch 22.8%; Score 29.4; DB 3; Length 3520; I Similarity 54.1%; Pred. No. 5.4; 60; Conservative 0; Mismatches 51; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 634;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Apoptosis-Inducing DNA Sequences FILE REFERENCE: 2923-0133 CURRENT APPLICATION NUMBER: US/10/332,859 CURRENT FILING DATE: 2003-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Apoptosis-Inducing DNA Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           48 ACCCCGACCGAGATGGTCGGGGTCTTTTTTTTTGTTGTGCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 29.2; DI
Pred. No. 3.8;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: PCT/FP01/08170
PRIOR FILING DATE: 2001-07-13
NUMBER OF SEQ ID NOS: 355
SOFTWARE: Patentin version 3.2
SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 222, Application US/10332859; Publication No. US20040088746A1; GENERAL INFORMATION: APPLICANT: Schoenfeld, Nicole; APPLICANT: Schoenfeld, Nicole; APPLICANT: Cramer, Ursula; APPLICANT: Gewies, Andreas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108 ATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       185 Arcaargccracrregregace 164
                                                                                                                                                                                                                                                                                                               Sequence 15, Application US/10332859; Publication No. US20040088746A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22.6%;
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Grimm, Stefan
APPLICANT: Schoenfeld, Nicole
APPLICANT: Braziulis, Erik
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cramer, Ursula
Gewies, Andreas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Albayrak, Timur
Gille, Hendrik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matthias
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Albayrak, Timur
Gille, Hendrik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Klein, Matthias
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Manuel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Voss, Frank
Mund, Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Voss, Frank
Mund, Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Mus musculus
US-10-332-859-15
                                                                                                                                                                     64 TCGGGGTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
  Query Match
Best Local Similarity
Matches 60; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Klein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bauer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bauer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-332-859-232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                         셤
                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                      ઠ
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                Sequence 1, Application US/10687677
Sequence 1, Application US/10687677
Publication No. US20040142419A1
GENERAL INFORMATION:
APPLICANT: GUY, JOHN
TITLE OF INVENTION: MUTATIONS
FILE REFERENCE: 5853-324
CURRENT APPLICATION NUMBER: US/10/687,677
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1292 Gránacrececricarerieriendarerecererececececererereren 1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57 GAGATGGTCGCGCTCTTTTGTTGTGGTCCTGTGACGTGTTGTCCAACCGTATTATTCCG 116
604 ATTACAGATATCAACAAGGCTTACCTAAATCGTGGTGACCTTTCTGTTGAGCTGATGGGG 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Lee, John
APPLICANT: Lee, John
APPLICANT: Thompson, Pamela
APPLICANT: Thompson, Pamela
APPLICANT: Thompson, Pamela
APPLICANT: Lillie, James
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
TILE REFERENCE: MRI-006B
CURRENT APPLICATION NUMBER: US 60/191,031
PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR APPLICATION NUMBER: US 60/207,124
PRIOR PILING DATE: 2000-05-25
PRIOR PILING DATE: 2000-05-25
PRIOR PILING DATE: 2000-05-25
PRIOR PLING DATE: 2000-07-07
PRIOR PLING DATE: 2000-07-07
PRIOR PLING DATE: 2000-07-07
PRIOR PLING DATE: 2000-07-27
PRIOR PLING DATE: 2000-07-27
PRIOR PLING DATE: 2000-07-27
PRIOR PLING DATE: 2000-07-27
PRIOR PLING DATE: 2000-07-27
PRIOR PLING DATE: 2000-07-27
PRIOR PLING DATE: 2000-07-27
PRIOR PLING DATE: 2000-07-27
PRIOR PLING DATE: PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 29.4; DB 7; Length 1377; Pred. No. 4; 0; Mismatches 26; Indels 0
                                       92 CGTGTTGTCCAACCGTATTATTCCGGA 118
                                                                                 664 cerecrrecrrecrrecinecaracecea 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
US-09-814-353-19115
Sequence 19115, Application US/09814353
Publication No. US20030165831A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 22.8°
Best Local Similarity 63.4°
Matches 45; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1232 AACATGTACAG 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               117 GACTAGTTCAG 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , ORGANISM: Homo sapiens
US-10-687-677-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo sapiens
US-09-814-353-19115
                                                                                                                                             RESULT 5
US-10-687-677-1/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 19115
LENGTH: 3520
                                                                                                                                                                                                                                                                                                                                                                                                                                               1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 1
                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

Gapa

```
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              48 ACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTGGTGCTGTGACGTGTTGTCCAACCGT 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      813 Arccercaecreciesecearereserrireristesecereraacresereseceaere 872
                                                                                                                                                                                                                                                                                                                                                                     48 ACCCCGACCGAGATGGTCGGGGTCTTTTTGTTGTTGGTGCTGTGACGTGTTGTCCAACCGT 107
                                                                                                                                                                                                                                                                                                                                                                                                           769 Arccercacerecidedeangingeritricingidedecininalecidedecentre 828
                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22.6%; Score 29.2; DB 7; Length 1836; 59.8%; Pred. No. 5.2; tive 0; Mismatches 33; Indels 0.
                                                                                                                                                                                                                                                                                   Length 1013;
                                                                                                                                                                                                                                                                               Score 29.2; DB 7; Length 1 Pred. No. 4.3; 0; Mismatches 33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Gewies, Angreas,
APPLICANT: Voss, Frank
APPLICANT: Voss, Frank
APPLICANT: Albayrak, Timur
APPLICANT: Allayrak, Timur
APPLICANT: Allayrak, Timur
APPLICANT: Klein, Matthias
APPLICANT: Klein, Matthias
APPLICANT: Klein, Matthias
APPLICANT: Klein, Matthias
APPLICANT: Klein, Matthias
APPLICANT: Klein, Matthias
APPLICANT: Number: 2003-01-14
FILE REFERENCE: 2903-01-14
FILE OF INVENTION NUMBER: PCT/EP01/08170
PRIOR PILING DATE: 2003-07-13
NUMBER OF SEQ ID NOS: 355
SOFTWARE: Patentin version 3.2
SEQ ID NO 17
LENGTH: 1836
FILE REFERENCE: 2923-0133
CURRENT APPLICATION NUMBER: US/10/332,859
CURRENT FILING DATE: 2003-01-14
FRIOR APPLICATION NUMBER: PCT/EP01/08170
FRIOR FILING DATE: 2001-07-13
NUMBER OF SEQ ID NOS: 355
SOFTWARE: PatentIn version 3.2
SEQ ID NO 232
LENGTH: 1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  108 ATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          873 Archargccracirggrad 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                       108 ATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             829 Arcaargccracircereace 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 17, Application US/10332859
Publication No. US20040088746A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Grimm, Stefan
APPLICANT: Schoenfeld, Nicole
APPLICANT: Braziulis, Erik
APPLICANT: Cramer, Ursuia
APPLICANT: Gewies, Andreas
                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 59.8%;
Matches 49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 59.8<sup>3</sup>
Matches 49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: Mus musculus
US-10-332-859-17
                                                                                                                                                                                               TYPE: DNA
CORGANISM: Mus musculus
US-10-332-859-232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -10-332-859-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
```

; Sequence 1, Application US/10779271 ; Publication No. US20040220387A1

RESULT 10 US-10-779-271-1

```
APPLICANT: Beard, Chris
APPLICANT: Burges, Chris
APPLICANT: Burges, Chris
APPLICANT: Burges, Chris
APPLICANT: Gannon, Allison
APPLICANT: Harvey, Jeanne
APPLICANT: Li, Zheng
APPLICANT: Li, Zheng
TITLE OF INVENTION: Identification and Verification of Methylation Marker Sequences
FILE REFERENCE: 1657/2032
CURRENT APPLICATION NUMBER: US/10/737,082
CURRENT PILING DATE: 2003-12-16
PRIOR APPLICATION NUMBER: US 10/737,082
NUMBER OF SEQ ID NOS: 300
SOFTWARE: Patentin version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50053 Adcagricactricadactrircicacdaaaagaagaccdaracagricgiggragicirar 50112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    47662 AGCAGTTCACTTGAGACTTTCTCACGGAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 47721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 29; DB 9; Length 354592;
Pred. No. 32;
0; Mismatches 45; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 29; DB 8; Length 344805;
Pred. No. 32;
0; Mismatches 45; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50113 ATTIGCTACGTGCTCATGTGTTGTCTGATGATGATGCAG 50153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     47722 ATTTGCTACGTGCTCATGTGTTGTCTGATGATGCAG 47762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        76 TGTTGTGGTGTGTGTGTTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        76 TGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCG 116
APPLICANT: ABLIZEDECA AB
TITLE OF INVENTION: Methods
FILE REFERENCE: ASZD-P02-251
CURRENT APPLICATION NUMBER: US/10/779,271
CURRENT FILING DATE: 2004-02-13
PRIOR APPLICATION NUMBER: 09/465,844
PRIOR PILING DATE: 2000-02-01
PRIOR PILING DATE: 1998-07-28
PRIOR PLING DATE: 1997-08-97
PRIOR PLING DATE: 2004-01-12
NUMBER OF SEQ ID NOS: 29
SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 70, Application US/10737082; Publication No. US20050130170A1
BENERAL INFORMATION: APPLICANT: Bayer Healthcare LLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22.5%;
55.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 22.5%;
Best Local Similarity 55.4%;
Matches 56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Homo sapiens
US-10-737-082-70
                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
CRCANISM: Homo sapiens
US-10-779-271-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 70
LENGTH: 354592
                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 344805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
```

```
APPLICANT: DIVERAR CORPORATION
APPLICANT: DIVERAR CORPORATION
APPLICANT: MURPHY, Dennis
APPLICANT: MURPHY, Dennis
APPLICANT: MURPHY, Dennis
APPLICANT: MARPHY, Dennis
APPLICANT: MARPIA, Anthony
APPLICANT: LINK, Steven
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT: WARREN, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRINC, BONDIA
APPLICANT, PRIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: La Rosa, Thomas J.
APPLICANT: Exovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1041 GCTGACTTCCCACCTTGATGACTCAAGGGAGCACGACGTAGTAGGTCGGGATCTGGGTGC 982
                                                                                        229 ATCCCTCACCTCCTGGGCGATGWGGTTTTCTTGTGGGGGCTGTAACCTGCTGGCCCACTTC 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19 GATTACTICGAGCATTACTGACGACAAAGACCCCGACCGAGATGGTCGGGGGTCTTTTGT 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 22.2%; Score 28.6; DB 8; Length 1043; Best Local Similarity 55.6%; Pred. No. 7.3; Matches 55; Conservative 0; Mismatches 44; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79 TGTGGTGCTGTGTGTGTCCAACCGTATTATTCCGG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        981 recreacearcecererreaceaaceceaacrreece 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Clone ID: MRT4577_70558C.1
US-10-425-115-152385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 38-21(53222)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369226
                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-425-115-152385/c
; Sequence 152385, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
        48 ACCCCGACCGAGATGGTCGGGGTCTTT
                                                                                                                                                                                                                                                           289 ATCAATGCCTACTTGGTGGACG 310
                                                                                                                                                                            108 ATTATTCCGGACTAGTTCAGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 31, Application US/09903410; Patent No. US20020146799A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 152385
LENGTH: 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-903-410-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Pat
SEQ ID NO 31
LENGTH: 936
TYPE: DNA
                                                                      g
                                                                                                                                                                            ò
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
Sequence 70, Application US/10765790

| Sequence 70, Application US/10765790
| Publication No. US20050130172A1
| GENERAL INFORMATION:
| APPLICANT: Bayer Healthcare LLC
| APPLICANT: Barger Healthcare LLC
| APPLICANT: Burgess, Chris
| APPLICANT: Burgess, Chris
| APPLICANT: Burgess, Chris
| APPLICANT: Gannon, Allison
| APPLICANT: Lechner, John F. |
| APPLICANT: Lechner, John F. |
| APPLICANT: Lechner, John F. |
| APPLICANT: Lechner, John F. |
| APPLICANT: Lechner, John F. |
| APPLICANT: Lechner, John F. |
| APPLICANT: Lachner, John F. |
| 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50053 AGCAGTTCACTTCAGACTTTCTCACGGAAAGAAGTGCGATACAGTTGGTGGTAGTCTTAT 50112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 29; DB 9; Length 354592;
Pred. No. 32;
0; Mismatches 45; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22.3%; Score 28.8; DB 7; Length 766; 58.5%; Pred. No. 5.6; ive 1; Mismatches 33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50113 ATTTGCTACGTGCTCATGTGTTGTCTGATGATGCAG 50153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76 TGTTGTGGTGCTGTGACGTGTTGTCCAACCGTATTATTCCG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APFLICANT: CALLE, ABLITIANA
APPLICANT: Manuel
APPLICANT: Bauer, Manuel
TITLE OF INVENTION: Apoptosis-Inducing DNA Sequences
FILE REFERENCE: 293-0133
CURRENT APPLICATION NUMBER: US/10/332,859
CURRENT PILING DATE: 2003-01-14
PRIOR APPLICATION NUMBER: PCT/EP01/08170
PRIOR APPLICATION NUMBER: PCT/EP01/08170
PRIOR APPLICATION NUMBER: 2001-01-33
NUMBER OF SEQ ID NOS: 355
SOFTWARE: Patentin version 3.2
SEQ ID NO 317
LENGTH: 766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22.5%; Score 29;
55.4%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Sequence 317, Application US/10332859; Publication No. US20040088746A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Grimm, Stefan
APPLICANT: Schoenfeld, Nicole
APPLICANT: Braziulis, Erik
APPLICANT: Cramer, Ursula
APPLICANT: Gewies, Andreas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Voss, Frank
Mund, Thomas
Albayrak, Timur
Gille, Hendrik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 55.49
Matches 56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 22.3
Best Local Similarity 58.5
Matches 48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo sapiens
US-10-765-790-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Mus musculus
US-10-332-859-317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 354592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

ò

ô

```
ö
                                                                                                    0; Сарв
                                        Query Match 22.0%; Score 28.4; DB 3; Length 936; Best Local Similarity 56.4%; Pred. No. 8.4; Matches 53; Conservative 0; Mismatches 41; Indels 0
                                                                                                                                                                62 GGTCGGGGTCTTTTGTTGTGGTGGTGGTG 95
178 GAAGGAGAAGTTTTCGGGCAGATGCTGAGAAGAG 811
                                                                                                                                                                                                                                            Search completed: March 7, 2006, 13:34:34 Job time : 358.047 secs
; ORGANISM: Archaeoglobus fulgidus US-09-903-410-31
                                                                                                                                                                  ઠે
                                                                                                                             g
                                                                                                                                                                                           g
                                                                                                         ઠે
```